

**Case for endorsement**

**Part 3 AHC**

**Agriculture, Horticulture and Conservation and Land Management Training Package**

**Version 6.0**

**Submitted by Skills Impact**

**on behalf of**

**​Agriculture and Production Horticulture Industry**

**Reference Committee and Amenity Horticulture,**

**Landscaping and Conservation & Land**

**Management​​ Industry Reference Committee**

**Month, 2020**

Contents

[A. Administrative details 4](#_Toc50726551)

[B. Description of work and request for approval 6](#_Toc50726552)

[C. Evidence of Industry support 19](#_Toc50726553)

[D. Industry expectations about training delivery 22](#_Toc50726554)

[E. Implementation of the training package components 24](#_Toc50726555)

[F. Quality assurance reports 26](#_Toc50726556)

[G. Implementation of COAG Industry Skills Council reforms to training packages 28](#_Toc50726557)

[H. Evidence of completion 28](#_Toc50726558)

[I. IRC support 29](#_Toc50726559)

[Appendix 1: Components for endorsement 30](#_Toc50726560)

[Appendix 2: Industry support 45](#_Toc50726561)

[Appendix 3: Minor Updates 87](#_Toc50726562)

[Appendix 4: Quality assurance report 88](#_Toc50726563)

# A. Administrative details

This section provides an overview of the relevant organisations, the case for change and training package components for endorsement.

## Organisational details

This submission is made by the following Industry Reference Committees (IRCs):

* ​Agriculture and Production Horticulture IRC
* Amenity Horticulture, Landscaping and Conservation & Land Management​ IRC.

Skills Impact Ltd is the Skills Service Organisation (SSO) supporting this submission.

## Component details

The Case for Endorsement comprises 8 qualifications, 54 units of competency and their associated assessment requirements for endorsement as part of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.*

| Project Name | Components |
| --- | --- |
| **Green Walls and Rooftop Gardens** | * 5 new units of competency * 3 new skill sets (not for endorsement) |
| **Nursery Production and Production Horticulture** | * 5 merged qualifications (combined 10 existing qualifications) * 3 revised qualifications * 1 qualification to be deleted * 48 revised units of competency (with new code) * 1 new unit of competency * 19 updated units of competency (minor changes not for endorsement) * 5 revised skill sets (not for endorsement) |

A full list of components proposed for endorsement appears in **Appendix 1: Components for Endorsement.** Qualifications and units of competency reviewed as minor updates appear in **Appendix 3: Minor Updates**.

## Case for Change details

### Green Walls and Rooftop Gardens

The Case for Change (Reference number: Skills Impact/TPD/2019-20-002) was approved on 13 August 2019. The requirements set by the Australian Industry and Skills Committee (AISC) in relation to the training package development work are:

* 15 new units of competency
* 4 new skill sets.

### Nursery Production and Production Horticulture

The Case for Change (Reference number: Skills Impact/TPD/2018-19/005) was approved on 26 March 2019.The requirements set by the Australian Industry and Skills Committee (AISC) in relation to the training package development work are:

* Review 11 qualifications
* Review 68 units of competency
* Review 5 skill sets.

# B. Description of work and request for approval

The section describes the work undertaken and the decision being sought from the AISC. The components submitted for endorsement have been reviewed as part of the following projects:

* Green Walls and Rooftop Gardens
* Nursery Production and Production Horticulture.

## Work undertaken and why

The following points are covered for each project.

* All components submitted for endorsement have been developed and reviewed in accordance with the *Standards for Training Packages 2012*, the *Training Package Products Policy 2019* and the *Training Package Development and Endorsement Process Policy, 2019*.
* Evidence of consultation with states and territories is provided in [Appendix 2: Industry support](#_Appendix_2:_Industry).

### Green Walls and Rooftop Gardens

Skill Description:

Roof gardens, vertical gardens and green facades are a subset of the ‘green infrastructure’ or ‘living infrastructure’ industry sector. This is of growing significance to a range of stakeholders (product suppliers, government policy makers, builders/property developers, landscapers/horticulturalists and the community) as increasing urbanisation motivates green infrastructure projects in urban development for aesthetic, environmental, economic and/or social reasons.

Horticulturalists are familiar with plant and media recommendations and landscapers (designers and constructors) are familiar with building installations, such as garden beds and tree landscapes at ground level. However, the skills and knowledge required to design, construct and maintain green infrastructure on walls and roofs is specialised. Consideration needs to be given to drainage and filtration systems, soil/media and plant selection for specialised locations, waterproof barrier selection, nutrient requirements, access points, working at heights on elevated work platforms, and local government legislation. Knowledge of environmental factors and microclimates and how much weight a structure can bear is important. These unique skill requirements of workers in this sub-sector have been identified as part of this project and reflected in the national skills standards to support the skills development and career opportunities in this growing industry.

Driver for this project:

Australian city dwellers will be all too familiar with the fierce heat that can be experienced on a hot summer’s day, when surrounded by closely constructed buildings, concrete and other solid surfaces. Roof gardens, vertical gardens and green facades can offer respite from these ‘urban heat islands’, where space for traditional parks is limited. In recent years, Australian city councils have pledged to increase green infrastructure to reduce the urban heat island effect. Melbourne has a Green Our City Strategic Action Plan, Sydney has the Green Roofs and Walls Policy, and Brisbane has introduced a non-statutory New World City Design Guide – Buildings that Breathe.

Vertical gardens and roof gardens not only help cool our cities, they manage storm water, improve air quality and offer energy-saving, lifestyle and health benefits in urban, regional and rural environments. These ‘living’ roofs and walls are growing in popularity, especially as they offer city residents healthier, environmentally responsible buildings. Population growth in cities is influencing government policies around sustainable living and urban greening within high-density living areas. The rising interest in the development of green infrastructure is encouraged by government policy and the increased availability of technology that makes their construction and maintenance easier and more economical. Skills and knowledge are shifting to respond to the needs of this specialised sector and with that, job opportunities are on the increase.

The 2019–2022 Skills Forecast submitted to the AISC by the Amenity Horticulture, Landscaping, Conservation & Land Management Industry Reference Committee (AHLCLM IRC) approved the Green Walls and Rooftop Gardens project. The purpose of this project was to establish new skill sets and units of competency for the specialised skills and knowledge required to design, construct, install and maintain green infrastructure.

Work undertaken:

A group of Subject Matter Experts (SMEs) were identified to provide advice throughout the project that saw key industry employers, associations and peek training bodies being represented nationwide. The first SME meeting was held in early September, in Sydney. With this being such a new and emerging field, the SMEs provided much needed clarification and direction for the project whereby they identified the tasks individuals undertake when working with green infrastructure: roof gardens, vertical gardens and green facades. Industry recognised that there is a skills gap in vocational education with respect to ‘green infrastructure’. The specialised skills required were broken down to three key areas: design, construction, and maintenance. Currently there are no qualifications with these core skill requirements, though some skills such as plant selection and controlling plant pests, diseases and disorders, are covered in horticulture, landscaping and parks and gardens qualifications.

The roof gardens, vertical gardens and green facades sector is regarded as an emerging industry and a ‘trend’ that is in its infancy in Australia. Those organisations that are currently venturing into this niche market space are largely drawing on research, expertise and examples from overseas, system suppliers, experts, and specialist contractors who have been active in the sector for more than 10 years. The Australian governing bodies and some city councils have existing published policies and guides to encourage development in this sector. However, as is common for any growing industry that promises commercial opportunities; the increasing popularity of roof and vertical gardens and green facades is attractive for less experienced operators and/or employees. Feedback from consultation indicated that the main principles (skills and knowledge) of green infrastructure are very similar to ground-based principles of horticulture and landscape design, construction and maintenance. It is therefore understandable why existing landscape and horticulture operators are starting to take up this new market opportunity, as these individuals will be building on their existing knowledge. Feedback suggested the development of new skill sets is preferable to the development of a new qualification, as this will create a foundation for ongoing professional development for workers in this key specialist area.

Research of endorsed units of competency on the national system revealed that there are no current standards for training packages covering specific skills for green infrastructure. Therefore, three new skill sets have been created:

* *AHCSS00114 Design Roof Gardens, Vertical Gardens and Green Facades Skill Set*,
* *AHCSS00115 Construct Roof Gardens, Vertical Gardens and Green Facades Skill Set*
* *AHCSS00116 Maintain Roof Gardens, Vertical Gardens and Green Facades Skill Set*.

Accompanying these new skill sets are five new units of competency, that have been developed to encompass specialised skill areas:

* *AHCGRI501 Design roof gardens*
* *AHCGRI502 Design vertical gardens and green*
* *AHCGRI401 Construct roof gardens*
* *AHCGRI402 Construct vertical gardens and green facades*
* *AHCGRI301 Maintain roof gardens, vertical gardens and green facades*.

Research identified other existing units of competency such as: *AHCPCM504 Design specialised landscape* and *AHCPGD402 Plan a plant establishment program* which encompass skills and knowledge that can be utilised for green infrastructure related tasks. These units of competency have been included in the appropriate skill sets.

Through further SME discussions via phone and email, the accompanying units listed in these skill sets were modified to suit the needs for employers and employees. Initially, there was a suggestion to include a ropes unit in both *AHCSS00115 Construct Roof Gardens, Vertical Gardens and Green Facades Skill Set* and *AHCSS00116 Maintain Roof Gardens, Vertical Gardens and Green Facades Skill Set.* However, SMEs clarified that not all individuals undertaking these tasks would require knowledge and skills in the use of ropes. As skill sets cannot include elective units the decision was made to not include a ropes unit, therefore not limiting delivery. With the use of the new TPCMS analytical search tool it was discovered that there is no current ropes unit that would be suitable for this type of work. Analysis showed that the only ropes units in the system relate to abseiling (recreational sports) or to arboriculture (specifically with trees). Communication with Skills Service Organisation Artibus Innovation indicated that they are currently working with the Property Services IRC with regards to proposing a ropes unit; however, until such unit has been developed, endorsed and available on the national register, this is an area that will remain as a skills gap for the industry. This feedback has been placed into Skills Impact’s continuous improvement register for possible future inclusion once the new ropes unit of competency becomes available.

A site visit hosted by the Australian Institute of Horticulture (AIH) with a presentation by Junglefy at Sydney’s One Central Park on 16 October 2019, provided an opportunity to gain firsthand experience in the features and challenges of green infrastructure. The advantages of green infrastructure to urban environments were clearly identified and discussed. They include:

* improved air quality,
* biodiversity and health and well-being benefits,
* opportunities to grow and sell food; and
* provision for aesthetically pleasing buildings.

During the visit it became clear that design considerations need to not just consider external factors with regards to load bearing on the building structure and installation of irrigation systems but also site placement of plants, irrigation challenges when placed on multi storied buildings, ongoing maintenance and external aesthetics from the residents’ perspectives (from the inside out). The multiple challenges faced and experienced during the installation/build phases at One Central Park reinforced to the group the critical importance of effective training to be able to problem solve; manage and work in collaboration with builders, architects and residents; and the need for clear and concise communication throughout the whole build lifecycle and ongoing maintenance is paramount.

Junglefy CEO discussed how components of the build can be managed by different contractors who are dependent on each other. An example of poor activity coordination cited was an occasion when the water supply was turned off for maintenance by a licenced plumber who failed to notify the company that the water was not going to be turned back on until after the weekend. This action caused thousands of dollars of damage as all the newly installed plants died over the weekend and had to be replaced. There was not only the monetary loss, but this action also set the completion date of the project back. The group were also reminded that owners of apartments also need to know costs will be incorporated into the body corporate fees of the building to cover the maintenance of the plants and systems, that all require a 24/7 maintenance plan.

Clarification through consultation with industry and SMEs confirmed that although an individual would undertake similar steps to design and construct each type of green infrastructure, there are slight differences between roof gardens, vertical gardens and green facades. This set the basis for the new design and construct units of competency to each contain separate elements for roof gardens, vertical gardens and green facades, reinforcing the specialised learning. Feedback suggested that maintenance could be contextualised per type of green infrastructure as the same processes would take place.

A concern raised during first draft consultation phase and again during IRC approval called into question whether the proposed unit for design and unit for construct were too intricate and therefore raise potential difficulties in delivery as a learner would have to demonstrate the skills and knowledge to design and construct for three different types of green infrastructure per unit. Feedback suggested splitting the design and construct units into two units apiece (one for designing roof gardens and the other for designing vertical gardens and facades, one for constructing roof gardens and the other for constructing vertical gardens and facades) allowing adequate focus on delivery of these detailed units. Initially it was felt that keeping the units as is would satisfy industries needs as individuals would need to learn all three types of green infrastructure and how they interact with one another. However, at time of IRC approval (April 2020) this concern was escalated. To address this and other concerns a meeting with representatives from the IRC and SME working group was held on 4 June 2020. From this meeting it was determined that further consultation with SMEs including wider industry representation was required. On 25 June 2020 a meeting with SMEs and additional representatives was held to discuss potential changes to the components. They agreed that by splitting out the roof garden section of the initially proposed design unit and construct units, and therefore creating 4 units, would be a benefit in delivery, allowing greater focus on more robust units. With these adjustments implemented, further online consultation was sought on the reshaped drafts from 6 to 19 July 2020 and validated from 29 July to 12 August 2020.

Feedback on the Performance Evidence (PE) of these units indicated possible delivery complications with the individual having to design/construct one roof garden project with a minimum of 50 square metres, one vertical garden with a minimum of 20 square metres and one green facade with a minimum of 20 square metres. It was suggested that some Registered Training Organisations (RTOs) may struggle with the practical workspace to assess this PE. Industry experts consulted suggested that not all workers would be required to deliver spaces of these sizes (residential vs commercial) and that a minimal smaller square metre area would be suitable. The PE in both units was reduced to a minimum of 4 square meters for each type of green infrastructure. The work undertaken ensured that the industry experts consulted were satisfied the units still met the industries’ needs whilst allowing for a more flexible delivery by RTOs.

Throughout all discussions with employers it was confirmed that if someone is interested in entering the green infrastructure industry, they need to know all three types of infrastructure and how they interact with one another. It is common for workers to use a range of green infrastructure building styles and techniques across one project; indeed, some development sites may have all three incorporated. Industry reinforced the fact that an individual would not specialise in one type of green infrastructure, i.e. roof gardens alone, they would need to have sound knowledge of all three. As a result of this feedback both design units; *AHCGRI501 Design roof gardens* and *AHCGRI502 Design vertical gardens and green facades* have been included in the *AHCSS00114 Design Roof Gardens, Vertical Gardens and Green Facades Skill Set* and both the construct units *AHCGRI401 Construct roof gardens* and *AHCGRI402 Construct vertical gardens and green facades* have been included in the *AHCSS00115 Construct Roof Gardens, Vertical Gardens and Green Facades Skill Set*. Similarly, this is reflected with the proposed unit placement into existing AHC qualifications as explained below.

With no industry requirements for a new qualification in green infrastructure at this time, feedback from consultation proposed adding the new units of competency into existing AHC qualifications as electives. The table below shows the recommendations for placement of these new units. The support captured during this project for the unit placement has been added to the Skills Impact continuous improvement register. These qualifications will reflect industry recommendations as and when they are next reviewed. In the meantime, packaging rules within these qualifications permit the new units to be imported as electives.

| Proposed qualifications | AHCGRI501 Design roof gardens | AHCGRI502 Design vertical gardens and green facades | AHCGRI401 Construct roof gardens | AHCGRI402 Construct vertical gardens and green facades | AHCGRI301 Maintain roof gardens, vertical gardens and green facades |
| --- | --- | --- | --- | --- | --- |
| AHC30716 Certificate III in Horticulture |  |  |  |  | Yes |
| AHC30916 Certificate III in Landscape Construction |  |  |  |  | Yes |
| AHC31016 Certificate III in Parks and Gardens |  |  |  |  | Yes |
| AHC40416 Certificate IV in Horticulture |  |  | Yes | Yes | Yes |
| AHC42016 Certificate IV in Landscape | Yes | Yes | Yes | Yes | Yes |
| AHC50416 Diploma of Horticulture | Yes | Yes | Yes | Yes |  |
| AHC50616 Diploma of Landscape Design | Yes | Yes | Yes | Yes |  |
| AHC52016 Diploma of Landscape Project Management | Yes | Yes | Yes | Yes |  |

Another area of discussion during this project was the topic of prerequisites for the individual units as well as entry requirements for the skill sets. Concerns were raised by SMEs and further by the IRC that individuals should hold prior knowledge and possibly a qualification in horticulture or landscaping before undertaking further education in green infrastructure. As mentioned above, the new units of competency are proposed to be added as elective units to several existing qualifications, none of which currently have entry requirements, meaning a person could undertake the units, and RTOs could package the individual units into a short course from existing qualifications without entry requirements. As an alternative to entry requirements or prerequisites, wording such as; “This skill set is for experienced horticultural, landscaping, landscape design and/or construction workers, builders or developers who design green infrastructure for roof gardens, vertical gardens and green facades in association with specialists and building professionals” has been incorporated into the description of the new units and skill sets to indicate a necessary level of experience. RTOs can and should determine individual learner capabilities for enrolment. By not including prerequisites or entry requirements the units and skill sets will be accessible to a wider range of potential learners. This has been well received by industry and RTOs and reinforced during the additional consultation periods.

Terminology and language used throughout the project also needed to be consistent. With variations used throughout the country, advice was sought of the SMEs who concluded that the language used should be: roof garden, vertical garden and green facade, all to be classified under the new unit sector Green Infrastructure (GRI) within the *AHC Agriculture, Horticulture and Conservation and Land Management* *Training Package*. The new GRI unit sector sets the foundation for this new and emerging industry and provides space for additional units to be developed, should any future analysis identify this requirement.

A key message that became clear from consultation, is that roof gardens, vertical gardens and green facades have higher potential risks than traditional landscaping, as there is potential for significant risk to the building and/or structure in the event of a failure of the green infrastructure. As a result, consultation stakeholders posited that regulations for the sector may be imminent and stressed the importance of professional practice requirements (engagement of engineers, specialists, and certifiers) for operators in this industry sector. This is reinforced throughout the units where the individual must effectively communicate/consult with clients, contractors, architects, engineers, growing media specialists and suppliers to determine such things as design and regulatory requirements for green infrastructure. Consideration around who regulates this sector and the possible need for specific licences or tickets was a hot discussion. As these requirements will vary nationwide, a general licensing statement was placed in the skill sets and units stating the following:

“Licensing, legislative or certification requirements may apply to the work undertaken in this [unit/skill set] in some jurisdictions. Users are advised to check with the relevant regulatory authorities.”

This statement meets the need to satisfy any possible future regulatory/licencing changes.

### Nursery Production and Production Horticulture

The Nursery Production and Production Horticulture project is part of the review of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* based on industry sectors, including conservation and land management, nursery production, production horticulture, biosecurity and emergency response, and merchandising and sales. The project introduces a strategic and more efficient approach to reviewing the entire AHC Training Package over a four to six-year period, helping retain currency of training and response to industry skills needs.

The Agriculture and Production Horticulture and Amenity Horticulture, Landscaping and Conservation & Land Management IRCs have recommended implementing a strategic approach to reviewing the AHC Training Package. This approach is based on identifying and reviewing units by their sector classification rather than on their listing in qualifications. This has resulted in the capture of most job roles related to a relevant unit sector being identified, allowing training components to be updated with respect to the various performance contexts of those roles across industry.

Skill Description:

In Nursery Production and Production Horticulture, skills cover the whole value chain, from the propagation and growing of plants; to production horticulture businesses, growing and harvesting fruits, vegetables or nuts; and to retail nurseries selling plants to the public.

The skills and knowledge required to work within these areas are often transferable. Given their close relation, many of the challenges and opportunities facing these sectors are similar or related.

Increased competition from imported produce, market price pressures, and challenging seasonal conditions are all driving industry to adopt new technologies, process and operations.

Robotics are increasingly used for watering and picking crops; drones are being utilised to identify disease; and forecasting crop yield potential is coming along in leaps and bounds as collecting and processing a wide range of data becomes easier. Such developments require higher levels of digital skills to enable workers and managers to engage with equipment, software and data.

Driver for this project:

Given the high level of importance and complexity of these sectors it is essential that skills standards are reviewed and updated on a regular basis. This project has been proposed to review units across the sectors of production horticulture, nursery production and retail nursery. This will allow for the review of units to take into consideration ways in which transferable skills can be acknowledged, strengthening career paths across these sectors.

Nursery Production

The retail and production nurseries industry toil to find quality qualified staff. The industry also struggles to gain recognition as a career pathway for entry and graduate-level workers. Recently Horticulture Innovation and Nursery & Garden Industry Australia commissioned research into the lack of interest in the industry and how this can be changed.

Updates to the AHC Training Package since 2017 have addressed specific priority skills needs in this sector, particularly in pest management, soil management and irrigation. Given this work, it is now timely to review the remaining units of competency, within the Nursery Production, Plants Culture and Maintenance and Soils Management Unit Sectors to assist the industry’s work in creating career pathways and improved recognition. This review, in turn will assist in the review and revision of 13 qualifications and 6 skill sets

Production Horticulture

The Agriculture and Production Horticulture (APH) IRC has identified Production Horticulture as a priority area for review. The relevant units have not been reviewed for some years, with updates in June 2016 undertaken for the purposes of transitioning to the Standards for Training Packages 2012, not for industry relevance.

Australia’s horticulture industry has a reputation in both the domestic and international markets as a sustainable producer of premium safe food. This is primarily due to our high standards across all stages of the supply chain, from farm to consumer. The industry has moved from small-scale family farms to medium and larger scale operations, including corporate farming. Australian farmers continue to adjust their operations and adopt new technologies to respond to the opportunities and challenges of agricultural production in Australia, including increased competition from imported fresh and processed produce, market price pressures, challenging or adverse seasonal conditions.

Work undertaken:

Skills Impact was contracted to undertake the review and/or development of the following Nursery Production and Production Horticulture components for the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package*:

* 13 qualifications
* 6 skill sets
* 67 units of competency.

The project was segmented into three logical components and separate Subject Matter Expert Working Groups (SMEWG) were established for each of these segments. As a result, it was agreed that the following SMEWG’s be established:

* Production Horticulture and Floriculture - SMEWG 1
* Production Nursery and Retail Nursery - SMEWG 2
* Production Horticulture, Production Nursery and Retail Nursery Management - SMEWG 3.

An initial meeting of the SME Working Groups was conducted at for the following locations and dates:

* 10th July 2019, Qantas Meeting Rooms, Sydney NSW – SMEWG 2
* 11th July 2019, Qantas Meeting Rooms, Sydney NSW – SMEWG 1
* 15th July 2019, Qantas Meeting Rooms, Sydney NSW – SMEWG 3.

During these meeting participants were asked to undertake a workforce functional analysis (WFA) in order to identify the job roles for their sector along with the tasks and sub tasks for each of these job roles. Participants were also asked whether the qualifications with low or no enrolments should be streamlined into other existing qualifications or deleted if the job roles were no longer valid in Australia.

Participants were asked to provide job descriptions, and Nursery & Garden Industry Victoria provided copies of job descriptions for nursery and garden industry workers after the SMEWG meetings.

A Production Nursery and Retail Nursery Discussion Paper capturing the discussion and subsequent meeting notes including suggested qualifications structures was developed and distributed to the SME WG participants for their consideration and feedback.

Site visits are valuable to observe, first hand, the processes required in different settings and the skills and knowledge required by individuals for those processes. These visits assisted the content writer in providing valuable insight to the various tasks and sub tasks that are carried out and assist in the development of units of competency.

Site visits have included:

* 19 August 2019 Gardenworld, 810 Springvale Road, Braeside
* 22 August 2019 Burleigh Flowers, 42 Wiseman Road, Silvan
* 26 August 2019 Peny Bryn Flowers, 25 White Street, Silvan
* 26 August 2019 Sunny Hill Flowers, 42 Wiseman Road, Silvan
* 30 August 2019 Biemond Nurseries Seville VIC
* 2 September 2019 Tasmanian Mushrooms, 193 Sheffield Main Road, Spreyton, Tasmania
* 3 September 2019 Agronico, 4 Cockers Creek Road, Spreyton, Tasmania

As a result of initial SMEWG meetings and site visits, draft documents for all components were developed and published on the Skills Impact website. A series of face-to-face consultation workshops were conducted to obtain feedback for the draft components. All feedback was collected from 16 September to 31 October 2019, via the online feedback hub, emails and phone calls.

Face-to-face consultation workshops were conducted in the following locations:

* Mildura - 17 September 2019
* Launceston - 23 September 2019
* Adelaide - 25 September 2019
* Sydney - 26 September 2019
* Brisbane - 8 October 2019
* Cairns - 9 October 2019
* Melbourne - 10 October 2019
* Darwin - 15 October 2019
* Perth - 16 October 2019.

For people who could not attend any of the planned face-to-face meetings above, a webinar was held on 14 October 2019. This allowed the project team to brief attendees on the key changes to the components and to allow for questions to be posed to the project team about the work undertaken.

During the review of the existing qualifications it was determined that the current Floriculture and Production Horticulture qualifications could be merged into a single suite of Production Horticulture qualifications, and that the current Production Nursery and Retail Nursery qualifications could be merged into a single suite of Nursery Operations qualifications.

During the latter part of this review, the SMEWG for the project were asked to consider the potential for further merging of these qualifications along with the current horticulture qualifications (Certificate II, III, IV in Horticulture and Diploma of Horticulture) into a single suite of horticulture qualifications with elective streams. There were a number of potential models identified for merging the qualifications, with the result being two opposing opinions, namely:

* Consolidate the qualifications. For example, the existing qualifications, *AHC20316 Certificate II in Production Horticulture* and *AHC21516 Certificate II in Floriculture* to be merged into a revised *AHC20320 Certificate II in Production Horticulture,* which includes elective streams for production horticulture and floriculture This was the majority view and a position held by the Production Horticulture segment of the industry.
* Further consolidate the qualifications with the exception of the Certificate III “trade” qualifications – into a single suite of qualifications, including the horticulture qualifications. This was the view held by the majority of the Production Nursery and Retail Nursery segments of the industry.

Further consultation with the project SMEs determined that the qualifications should be made available for broader industry consideration and feedback. In addition, it was determined that a discussion paper should be developed and circulated at the same time to determine whether the qualifications should be merged.

The rationale for the merging of the qualifications was to provide greater clarity and simplicity for industry regarding the qualifications available for their workforce. Other opportunities that could arise from streamlining of the qualifications include:

* The potential for increased student enrolment numbers.
* The reduction of students enrolling in an unsuitable qualification.
* Marketing of the qualifications and industry outcomes to potential industry entrants is simplified.

Proposed changes to the units include:

* Minor changes to application.
* Minor edits to elements in some units and various changes and edits to Performance Criteria (PC).
* Inclusion of foundation skills.
* Assessment Requirements updated to include the frequency and or volume to performance evidence.
* Minor edits to performance evidence and knowledge evidence in some units.
* Specific conditions provided within the assessment conditions.

The following qualification has been proposed and recommended for deletion:

* *AHC50916 Diploma of Retail Nursery Management.* This qualification has been recommended for deletion due to low enrolment numbers.

The following units of competency has been merged:

* *AHCPHT301 Carry out a crop regulation program and AHCPHT305 Regulate crops have now been merged to create AHCPHT312 Implement a crop regulation program.*

Validation of components took place between 20 December 2019 – 16 February 2020. The extended period was due to a number of factors including the Christmas and New Year break and the devastating bushfires all around Australia that impacted this cohort of industry experts to carry out validation of the components in the normal allotted time for validation.

Despite these challenges, a representative group of experts from the industry were able to agree on minor updates to the final components and validation was achieved via a face-to-face meeting, -online surveys, phone calls and/or email.

Face-to-face validation meetings were held in Melbourne on 28January and 30 January 2020. A webinar was also held on 19 February 2020 in order to discuss and review the remaining units which had not been validated during these meetings. All revised qualifications were reviewed and validated and units in the following sectors were completed and feedback captured:

* NSY Nursery
* PCM Plant Culture and Management
* PHT Production Horticulture.

Units in Soils and Media (SOL) and Water (WAT) were validated via the online feedback hub and email.

As a direct result of feedback received for validation, changes were made to the documents under review. Most notably:

* *AHC20720 Certificate II in Nursery Operations* - change to Group B and Group C elective unit lists, and minor edit to qualification packaging rules
* *AHC31120 Certificate III in Nursery Operations* – change to core unit list, Group A and Group C elective unit lists, and minor edits to qualification packaging rules
* *AHC40620 Certificate IV in Nursery Operations* – change to qualification descriptor, and Group B and Group C elective unit lists
* *AHC50820 Diploma of Nursery Management* – change of qualification title, qualification descriptor and qualification core and elective unit lists.

Major edits have been made to several units which has resulted in the requirement to allocate a new code. These edits have included:

* Changes to unit titles
* Changes to performance criteria and/or elements
* Major changes to performance evidence and/or knowledge evidence
* Assessment conditions may have also been updated

In May 2020, the Amenity Horticulture, Landscaping and Conservation and Land Management IRC reviewed the final draft skills standards and requested additional time for industry to review of the 14 Nursery units, as they were concerned the terminology around these units required additional consideration to ensure learners have adequate opportunity to gain the required competencies.

As a result, meetings were held with SME WG to discuss all 14 units in the Nursery sector and clarify terminology throughout the drafts ensuring it was consistent and accurate.

The updated skills standards were then made available for broad industry feedback from 10 – 25 August 2020. This feedback was considered to produce final draft units and made available for validation and comment.

They have been updated to include work functions that reflect current job roles in the industry and incorporate the latest technologies, equipment and advances. Please note, this additional validation is for the NSY Nursery sector units only.

The draft documents were made available for validation until 4 September 2020.

## **Decision being sought**

This submission puts forward the Case for Endorsement for the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package version 6.0.*

### Green Walls and Rooftop Gardens

The draft components submitted for endorsement by the AISC are:

* 5 new units of competency; *AHCGRI501 Design roof gardens, AHCGRI502 Design vertical gardens and green facades, AHCGRI401 Construct roof gardens, AHCGRI402 Construct vertical gardens and green facades* and *AHCGRI301 Maintain roof gardens, vertical gardens and green facades*
* 3 new skill sets; *AHCSS00114 Design Roof Gardens, Vertical Gardens and Green Facades Skill Set, AHCSS00115 Construct Roof Gardens, Vertical Gardens and Green Facades Skill Set* and *AHCSS00116 Maintain Roof Gardens, Vertical Gardens and Green Facades Skill Set* (non endorsed).

The proposed Training Package components are listed in **Appendix 1: Components for Endorsement**.

### Nursery Production and Production Horticulture

The draft components submitted for endorsement by the AISC are:

* 8 qualifications

|  |  |
| --- | --- |
| *AHC20320* | *Certificate II in Production Horticulture* |
| *AHC20720* | *Certificate II in Nursery Operations* |
| *AHC30620* | *Certificate III in Production Horticulture* |
| *AHC31120* | *Certificate III in Nursery Operations* |
| *AHC40320* | *Certificate IV in Production Horticulture* |
| *AHC40620* | *Certificate IV in Nursery Operations* |
| *AHC50320* | *Diploma of Production Horticulture* |
| *AHC50820* | *Diploma of Nursery Management* |

* 1 qualification for deletion;

|  |  |
| --- | --- |
| *AHC50916* | *Diploma of Retail Nursery Management* |

* 1 new unit of competency;

|  |  |
| --- | --- |
| *AHCPCM509* | *Apply knowledge of plant physiology to horticultural practices* |

* 48 revised units of competency;

|  |  |
| --- | --- |
| *AHCNSY102* | *Support nursery work* |
| *AHCNSY205* | *Pot up plants* |
| *AHCNSY206* | *Care for nursery plants* |
| *AHCNSY207* | *Undertake propagation activities* |
| *AHCNSY208* | *Maintain indoor plants* |
| *AHCNSY308* | *Maintain nursery plants* |
| *AHCNSY309* | *Receive and dispatch nursery products* |
| *AHCNSY310* | *Install and maintain plant displays* |
| *AHCNSY311* | *Promote sales of plants* |
| *AHCNSY312* | *Prepare specialised plants* |
| *AHCNSY313* | *Implement a propagation plan* |
| *AHCNSY314* | *Operate fertigation equipment* |
| *AHCNSY403* | *Plan a growing-on program* |
| *AHCNSY404* | *Plan a propagation program* |
| *AHCPCM204* | *Recognise plants* |
| *AHCPCM205* | *Fell small trees* |
| *AHCPCM305* | *Implement a plant nutrition program* |
| *AHCPCM404* | *Recommend plants and cultural practices* |
| *AHCPCM405* | *Implement an integrated pest management program* |
| *AHCPCM507* | *Diagnose plant health problems* |
| *AHCPCM508* | *Develop an integrated pest management program* |
| *AHCPHT215* | *Plant horticultural crops* |
| *AHCPHT216* | *Carry out canopy maintenance* |
| *AHCPHT217* | *Undertake field budding and grafting* |
| *AHCPHT218* | *Carry out post-harvest operations* |
| *AHCPHT219* | *Handle and move mushroom boxes* |
| *AHCPHT220* | *Perform mushroom substrate process tasks* |
| *AHCPHT221* | *Water mushroom crops* |
| *AHCPHT222* | *Produce trellis dried grapes* |
| *AHCPHT312* | *Implement a crop regulation program* |
| *AHCPHT313* | *Implement a post-harvest program* |
| *AHCPHT314* | *Harvest horticultural crops mechanically* |
| *AHCPHT315* | *Establish horticultural crops* |
| *AHCPHT316* | *Supervise mushroom substrate preparation* |
| *AHCPHT317* | *Coordinate horticultural crop harvesting* |
| *AHCPHT409* | *Develop a crop regulation program* |
| *AHCPHT410* | *Develop harvesting and processing specifications to produce an olive oil* |
| *AHCPHT411* | *Implement and monitor a horticultural crop harvesting program* |
| *AHCPHT412* | *Manage mushroom substrate preparation* |
| *AHCPHT413* | *Oversee vineyard practices* |
| *AHCPHT511* | *Develop a horticultural production plan* |
| *AHCPHT512* | *Manage a controlled growing environment* |
| *AHCSOL203* | *Assist with soil or growing media sampling and testing* |
| *AHCSOL406* | *Sample soils and interpret results* |
| *AHCSOL506* | *Manage erosion and sediment control* |
| *AHCSOL507* | *Develop and manage a plan to reclaim land affected by salinity* |
| *AHCWAT302* | *Monitor and operate water treatment processes* |
| *AHCWAT504* | *Design water treatment systems* |

* 19 units of competency with minor updates;(non endorsed).

|  |  |  |
| --- | --- | --- |
| *AHCPCM302* | | *Provide information on plants and their culture* |
| *AHCPCM304* | | *Report on health and condition of trees* |
| *AHCPCM402* | | *Develop a soil health and plant nutrition program* |
| *AHCPCM502* | | *Collect and classify plants* |
| *AHCPCM503* | *Specify plants for landscapes* | |
| *AHCPCM504* | *Design specialised landscape* | |
| *AHCPCM505* | *Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs* | |
| *AHCPCM601* | *Develop and implement a plant health management strategy* | |
| *AHCPHT101* | *Support horticultural production* | |
| *AHCPHT307* | *Prepare raw materials and compost feedstock* | |
| *AHCPHT308* | *Prepare value added compost-based products* | |
| *AHCPHT401* | *Assess olive oil for style and quality* | |
| *AHCPHT406* | *Control Phase II mushroom substrate process* | |
| *AHCPHT407* | *Manage mushroom crop development* | |
| *AHCSOL402* | *Develop a soil use map for a property* | |
| *AHCSOL403* | *Prepare acid sulphate soil management plans* | |
| *AHCSOL404* | *Supervise acid sulphate soil remediation and management projects* | |
| *AHCSOL502* | *Manage soils to enhance sustainability* | |
| *AHCWAT201* | *Set up operate and maintain water delivery systems for compost* | |

* 5 skill sets, (non endorsed).

|  |  |
| --- | --- |
| *AHCSS00064* | *Production Horticulture Administration Supervisor Skill Set* |
| *AHCSS00068* | *Production Horticulture Technology Skill Set* |
| *AHCSS00107* | *Production Horticulture Machinery Skill Set* |
| *AHCSS00108* | *Production Horticulture Manager Skill Set* |
| *AHCSS00109* | *Production Horticulture Supervisor Skill Set* |

The proposed Training Package components are listed in **Appendix 1: Components for Endorsement**.

# C. Evidence of Industry support

This section provides evidence that the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0* is supported by industry.

## Support by IRC(s)

The ​Agriculture and Production Horticulture IRC and Amenity Horticulture, Landscaping and Conservation & Land Management​​ IRC are responsible for the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package.* IRC members supported the SMEWGs recommendation to put forward the proposed training package products to the AISC for endorsement. Please refer to **Section I. IRC support** for written evidence of support.

## Consultation with stakeholders

During development of the training package products, the following communication strategies were used for consultation with stakeholders:

* A project page was set up on the Skills Impact website at the start of each the projects, containing information about the project together with progress updates. Project pages remained on the website throughout the duration of the project. Visitors were invited to register their interest to receive email alerts about the project including notification and registration for public consultation workshops and opportunities to provide feedback on draft materials.
  + Green Walls and Rooftop Gardens project page: <https://www.skillsimpact.com.au/horticulture-conservation-and-land-management/training-package-projects/green-walls-rooftop-gardens-project/>
  + Nursery Production and Production Horticulture project page: <https://www.skillsimpact.com.au/agriculture/training-package-projects/horticulture-and-nursery-project/>
* IRC member communications with their industry networks
* Draft materials were hosted on the Skills Impact website for a minimum four-week period. Final drafts were hosted for an additional minimum two-week period for validation of final drafts.
* Stakeholders provided feedback via the Skills Impact Feedback Hub, online questionnaires/surveys, emails or telephone calls, or during consultation workshops.
* Emails and newsletters were sent to state and territory training authorities (STAs/TTAs), VET regulators, industry training advisory bodies (ITABs) and other stakeholders to keep them informed of the project’s progress.

Please refer to **Appendix 2: Industry support** for a list of activities conducted, organisations and individuals consulted, together with letters of support.

In addition to these activities, the following specific stakeholder engagements took place for each project.

### Green Walls and Rooftop Gardens

* SMEWG was formed to provide input on the development of draft materials. This group also provided advice and feedback throughout all stages of project development.
* SMEWG meeting held in Sydney on 3 September 2019, in addition to a teleconference and ongoing emails and telephone calls.
* Six public face-to-face consultation workshops were held in Darwin, Melbourne, Brisbane, Sydney, Adelaide, and Perth. Workshops were scheduled and promoted for all locations; however, no registered participants attended in Adelaide.
* One consultation webinar was held to cater for people who could not attend any of the face-to-face consultation workshops.
* Extended public feedback periods for both first draft consultation and validation via Skills Impact webpage.
* One site visit to building One Central Park, Sydney on 16 October 2019. Skills Impact were given a behind the scenes look at the world’s tallest vertical garden at 130m high, hosted by Junglefy who continue to be involved in this creation.
* Stakeholders that were identified as potentially having an interest in the project were contacted via phone and email at the start of the project in August 2019 and continuously throughout as the project developed.
* Additional feedback was gathered from stakeholders via face-to-face meetings, emails and telephone calls.
* Validation meeting held in Brisbane on 26 February 2020 with SMEWG to provide advice on feedback received during the two-week public validation period and to review and validate final drafts.
* IRC and SME representatives meeting 4 June 2020 via zoom
* SMEWG meeting 25 June 2020 via zoom
* Redesign units available for additional feedback online from 6 to 19 July 2020
* Redesign units available for additional validation feedback online from 29 July to 12 August 2020.

### Nursery Production and Production Horticulture

* Three SMEWGs were formed to provide input into the development of draft materials. These groups also provided advice and feedback throughout all stages of project development.
* SMEWGs meetings held in Sydney on 3 September 2019, in addition to a teleconference and ongoing emails and telephone calls.
* Six public face-to-face consultation workshops held between 17 September 2019 and 16 October in Mildura, Launceston, Adelaide, Sydney, Brisbane, Cairns, Melbourne, Darwin and Perth
* One consultation webinar was held to cater for people who could not attend any of the face-to-face consultation workshops.
* Extended public feedback periods for both first draft consultation and validation via Skills Impact webpage.
* Seven site visits in Victoria and Tasmania occurred between 19 August and 3 September 2019. Skills Impact were given the opportunity to observe the processes involved in the nursery production and production horticulture industries.
* Stakeholders that were identified as potentially having an interest in the project were contacted via phone and email at the start of the project in August 2019 and continuously throughout as the project developed.
* Additional feedback was gathered from stakeholders via face-to-face meetings, emails and telephone calls.
* Face to face validation meetings were held in Melbourne on 28th January and 30 January 2020. A webinar was also held on 19 February 2020.

## State/Territory and key stakeholder engagement

A wide range of stakeholders have been engaged across Australia and from all states and territories. Stakeholders have included national and state-based industry associations, government departments, peak national committees, union, enterprises, key training providers and a range of individuals who are considered to be subject matter experts. Please refer to Appendix 2: Industry support for a list of activities conducted, together with organisations and individuals consulted.

## Reports by exception

There are no reports by exception.

# D. Industry expectations about training delivery

This section explains the advice provided in the Companion Volume Implementation Guide for the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0*, together with recommendations for delivery of qualifications as traineeships/apprenticeships.

## Companion Volume Implementation Guide

The companion volume details information that covers key industry expectations about:

* qualifications suitable for vocational education and training delivered to secondary students
* qualifications suitable for delivery as apprenticeships or traineeships
* amount of training/volume of learning requirements to ensure that the individual can gain the necessary skills and knowledge
* key legislative requirements
* essential knowledge requirements.

## Delivery as apprenticeship/traineeship

The Agriculture and Production Horticulture (APH) IRC and the Amenity Horticulture, Landscaping and Conservation & Land Management (AHLCLM) IRC recommends that each qualification listed in the following table could be the basis for a traineeship or apprenticeship.

|  |  |
| --- | --- |
| Qualification | Delivery recommendation |
| AHC20320 Certificate II in Production Horticulture | Traineeship |
| AHC20720 Certificate II in Nursery Operations | Traineeship |
| AHC30620 Certificate III in Production Horticulture | Traineeship |
| AHC31120 Certificate III in Nursery Operations | Apprenticeship |
| AHC40320 Certificate IV in Production Horticulture | Traineeship |
| AHC40620 Certificate IV in Nursery Operations | Traineeship |
| AHC50320 Diploma of Production Horticulture | Traineeship |
| AHC50820 Diploma of Nursery Management | Traineeship |

## Delivery as VET programs for secondary students

| * AHC20320 Certificate II in Production Horticulture * AHC20720 Certificate II in Nursery Operations |
| --- |

# E. Implementation of the training package components

This section explains how the training package meet occupational and/or licensing requirements and identifies particular implementation issues and strategies to manage these issues.

## How training package components meet occupation and licensing requirements

### Green Walls and Rooftop Gardens

Licencing requirements for approval of designs and specifications and landscape construction work depending on the value of the work, and certification requirements of operators using specific plant and equipment varies across state and territory jurisdictions. For example, not all green infrastructure work, construction or maintenance, will require use of high-risk work equipment (such as working at heights, using elevating work platforms or scissor lifts, or be on a construction site requiring a White Card).

As these requirements will vary nationwide, a general licensing statement was placed in the skill sets and units stating the following:

“Licensing, legislative or certification requirements may apply to the work undertaken in this [unit/skill set] in some jurisdictions. Users are advised to check with the relevant regulatory authorities.”

This statement meets the need to satisfy any possible future regulatory/licencing changes.

## Implementation issues and management strategies

### Green Walls and Rooftop Gardens

It is industry’s expectation that units of competency *AHCGRI501 Design roof gardens, AHCGRI502 Design vertical walls and green facades, AHCGRI401 Construct roof gardens* and *AHCGRI402 Construct vertical gardens and green facades* and the related skill sets are undertaken by persons with experience in landscaping work, landscape design, horticulture and/or building and construction. Without limiting entry by prescribing prerequisite units or entry requirements for skill sets, industry expects that users including registered training organisations would assess learners for necessary experience in these, or related fields that would enable their capability to undertake the units and/or skill sets.

Unit of competency *AHCGRI301 Maintain roof gardens, vertical walls and green facades* requires that maintenance activities be undertaken on at least three occasions and over a period of at least two months to enable maintenance of plants and infrastructure to be required.

### Nursery Production and Production Horticulture

It is industry’s expectation that two of the revised qualifications include entry requirements before an individual can commence them. Those qualifications and their entry requirements are:

**AHC40620 Certificate IV in Nursery Operations**

To commence this qualification, individuals must demonstrate they have skills and knowledge in the application of:

* cultivating, growing and harvesting/production skills for a variety of plant types, including pest and disease control
* technology and equipment that apply in a production nursery or retail nursery workplace
* health and safety, pest management and biosecurity processes and regulations that apply in a production nursery or retail nursery workplace

The skills and knowledge may have been acquired through completion of a Certificate III or higher qualification relating to nursery or horticulture, or industry experience.

The job roles for this qualification require an individual to be able to provide technical support and supervise technical staff. This requires the individual to have underpinning technical skills in order to successfully undertake the qualification. As such it is critical that an individual has either completed an AQF3 level qualification in a related sector of the industry or have 2 years relevant industry experience.

**AHC50820 Diploma of Nursery Management**

To commence this qualification, individuals must demonstrate they have skills and knowledge in the application of:

* cultivating, growing and harvesting/production skills for a variety of plant types, including pest and disease control
* technology and equipment that apply in a production nursery or retail nursery workplace
* health and safety, pest management and biosecurity processes and regulations that apply in a production nursery or retail nursery workplace

The skills and knowledge may have been acquired through completion of a Certificate III or higher qualification relating to nursery or horticulture, or industry experience.

The job roles for this qualification require an individual to be able to provide technical support and manage technical staff. This requires the individual to have underpinning technical skills in order to successfully undertake the qualification. As such it is critical that an individual has either completed an AQF3 level qualification in a related sector of the industry or have 2 years relevant industry experience.

Pathways

A significant number of graduates of *AHC20320 Certificate II in Production Horticulture* would likely gain entry level jobs in the production horticulture or floriculture industry and then progress to *AHC30620 Certificate III in Production Horticulture*, which provides the skills and knowledge to perform higher skilled and autonomous operational roles.

A significant number of graduates of *AHC31120 Certificate III in Nursery Operations* would likely progress to *AHC40620 Certificate IV in Nursery Operations* enabling graduates to fill current and emerging roles such as; integrated pest managers, production nursery irrigation managers, dispatch managers, head growers, sales managers, site managers, quality assurance managers, retail nursery stock supervisors, green life buyer, nursery manager, merchandiser, or specialist technical roles.

It is envisaged that a number of graduates of *AHC40320 Certificate IV in Production Horticulture* would likely progress to *AHC50320 Diploma of Production Horticulture* or higher-level qualifications enabling graduates to fill current and emerging roles as owners, farm managers, head growers, crop managers, section managers, dispatch managers, sales managers, marketing managers or specialist consultant roles.

It is envisaged that a number of graduates of *AHC40620 Certificate IV in Nursery Operations* would most likely progress *to AHC50820 Diploma of Nursery Management* or higher-level qualifications enabling graduates to fill current and emerging roles as owners, farm managers, head growers, crop managers, sales managers, marketing managers or specialist consultant roles.

It is envisaged that a significant number of graduates of *AHC50320 Diploma of Production Horticulture* would most likely gain management level jobs in the production horticulture industry, which provides the skills and knowledge to perform higher skilled and autonomous operational roles.

# F. Quality assurance reports

Skills Impact declares that the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version No 6* meet the requirements of the *Standards for Training Packages 2012* and the *Training Package Development and Endorsement Process Policy 2019*.

The table provides a statement of evidence that the components meet the Training Package Quality Principles.

|  |  |
| --- | --- |
| **Principle** | **Evidenced by:** |
| 1. Reflect identified workforce outcomes | * Changes demonstrate a clear link back to relevant AISC decisions commissioning the work, the IRC Skills Forecast and Proposed Schedule of Work, National Review Schedule and/or Case for Change, or demonstrate other evidence of industry needs. * Training package components are compliant with the Standards for Training Packages 2012, the Training Package Products Policy and the Training Package Development and Endorsement Process Policy 2019 * Evidence that the training package components respond to Ministers’ policy initiatives, in particular the CISC 2015 training package reforms * Open and inclusive consultation and validation commensurate with scope and impact has been conducted |
| 2. Support portability of skills and competencies including reflecting licensing and regulatory requirements | * Packaging rules, qualifications framework, and pathways support movement within and across sectors * Identification of skill sets that respond to client needs * Other national and international standards for skills are considered * Solutions to incorporate licensing and regulatory requirements are brokered and there is clear evidence of support from licensing and industry regulatory bodies |
| 3. Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry | Active engagement across industry has sought to achieve a national consensus about the advice being provided to the AISC.  Best use is made of cross-industry and work and participation bank units |
| 4. Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces | Provide flexible qualifications that enable application in different contexts  Provide multiple entry and exit points  Pre-requisite units of competency are used only when required |
| 5. Facilitate recognition of an individual’s skills and knowledge and support movement between the school, vocational education and higher education sectors | Provide pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications |
| 6. Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements | Industry advice about delivery is provided via a Companion Volume Implementation Guide ready for publication at the same time as the Training Package  Units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth  Compliance with the TGA/National Register requirements for publication  Implementation advice is provided in a Companion Volume Implementation Guide that is ready for publication at the same time as the Training Package |

The declaration and statement of evidence is confirmed by the independent Quality Report which is provided in **Appendix 4: Quality Report**.

The *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Companion Volume Implementation Guide Parts 1 and 2* have been quality assured through Skills Impact’s quality processes and is available.

# G. Implementation of COAG Industry Skills Council reforms to training packages

The decision being sought from the AISC would support the COAG Industry and Skills Council reforms to training packages. Completion of training package development work, together with extensive consultation with relevant stakeholders, confirms that the submission:

### Green Walls and Rooftop Gardens

* The five new units of competency can be utilised as elective units across a broad range of landscape, horticulture and parks and gardens qualifications.
* The proposed inclusion of the five new units as electives in a single qualification (Certificate IV in Landscape) also enables an outcome specialising in green infrastructure end to end processes (design, construct, maintain) within the landscape sector.
* Three new skill sets have been developed.
* The skill sets provide specialisation pathways in green infrastructure into and from existing qualifications, including for other industry sectors such as building and property service professionals.

### Nursery Production and Production Horticulture

* The qualifications have been designed to align with current industry roles and work functions. The core units in the qualifications provide alignment with the core job role outcomes of the qualifications, whilst the number of elective units available in the qualifications design enables flexibility in achieving the qualifications and ensuring that the breadth of occupational outcomes within the industry are serviced by these qualifications.
* The units in this project have been reviewed/developed to enable use by multiple industry sectors. Whilst the qualifications have relied on units currently in the system to ensure that there is no duplication of current units of competency and to enable the recognition of skills for workers transitioning from other industries into the production horticulture, floriculture and nursery industries and between sectors in these industries.
* The skill sets reviewed in this project, enable acquisition of specific skills requirements of the industry whilst providing transition from other industries into the production horticulture industry and between sectors and job roles in the production industry.

# H. Evidence of completion

Skills Impact confirms that the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management* *Training Package Version No 6* have been completing according to the work assigned by the AISC in the Case for Change and the subsequent Activity Order.

The developed training package components are listed in **Appendix 1: Components for Endorsement**. Full copies of the listed training package components are provided with this Case for Endorsement.

## Evidence that training package component(s) are prepared for publication.

The Quality Report provides confirmation that the draft components meet the *Standards for Training Packages 2012*.

All components have been created to comply with the National Register requirements for publication. The **Mapping Summary** and **Training Package Modification History** provided in **Appendix 1 Components for endorsement** provide details of the changes to the training package components that are required to allow them to be published on the National Register.

# I. IRC support

The Agriculture and Production Horticulture Industry Reference Committee supports the submission of the training package components detailed in this Case for Endorsement.

Signed for and on behalf of the <name of IRC> by its appointed Chair.

|  |  |
| --- | --- |
| Name of Chair: |  |
| Signature of Chair: |  |
| Date: |  |

The Amenity Horticulture, Landscaping, Conservation & Land Management Industry Reference Committee supports the submission of the training package components detailed in this Case for Endorsement.

Signed for and on behalf of the <name of IRC> by its appointed Chair.

|  |  |
| --- | --- |
| Name of Chair: |  |
| Signature of Chair: |  |
| Date: |  |

# Appendix 1: Components for endorsement

## a. List of qualification titles and codes

| AHC Agriculture, Horticulture and Conservation and Land Management Training Package *Version No 6* Qualifications | |
| --- | --- |
| Code | Title |
| AHC20320 | Certificate II in Production Horticulture |
| AHC20720 | Certificate II in Nursery Operations |
| AHC30620 | Certificate III in Production Horticulture |
| AHC31120 | Certificate III in Nursery Operations |
| AHC40320 | Certificate IV in Production Horticulture |
| AHC40620 | Certificate IV in Nursery Operations |
| AHC50320 | Diploma of Production Horticulture |
| AHC50820 | Diploma of Nursery Management |

## b. List of unit titles and codes and associated assessment requirements

| AHC Agriculture, Horticulture and Conservation and Land Management Training Package *Version No 6* Units of competency | |
| --- | --- |
| Code | Title |
| AHCGRI301 | Maintain roof gardens, vertical gardens and green facades |
| AHCGRI401 | Construct roof gardens |
| AHCGRI402 | Construct vertical gardens and green facades |
| AHCGRI501 | Design roof gardens |
| AHCGRI502 | Design vertical gardens and green facades |
| AHCNSY102 | Support nursery work |
| AHCNSY205 | Pot up plants |
| AHCNSY206 | Care for nursery plants |
| AHCNSY207 | Undertake propagation activities |
| AHCNSY208 | Maintain indoor plants |
| AHCNSY308 | Maintain nursery plants |
| AHCNSY309 | Receive and dispatch nursery products |
| AHCNSY310 | Install and maintain plant displays |
| AHCNSY311 | Promote sales of plants |
| AHCNSY312 | Prepare specialised plants |
| AHCNSY313 | Implement a propagation plan |
| AHCNSY314 | Operate fertigation equipment |
| AHCNSY403 | Plan a growing-on program |
| AHCNSY404 | Plan a propagation program |
| AHCPCM204 | Recognise plants |
| AHCPCM205 | Fell small trees |
| AHCPCM305 | Implement a plant nutrition program |
| AHCPCM404 | Recommend plants and cultural practices |
| AHCPCM405 | Implement an integrated pest management program |
| AHCPCM507 | Diagnose plant health problems |
| AHCPCM508 | Develop an integrated pest management program |
| AHCPCM509 | Apply knowledge of plant physiology to horticultural practices |
| AHCPHT215 | Plant horticultural crops |
| AHCPHT216 | Carry out canopy maintenance |
| AHCPHT217 | Undertake field budding and grafting |
| AHCPHT218 | Carry out post-harvest operations |
| AHCPHT219 | Handle and move mushroom boxes |
| AHCPHT220 | Perform mushroom substrate process tasks |
| AHCPHT221 | Water mushroom crops |
| AHCPHT222 | Produce trellis dried grapes |
| AHCPHT312 | Implement a crop regulation program |
| AHCPHT313 | Implement a post-harvest program |
| AHCPHT314 | Harvest horticultural crops mechanically |
| AHCPHT315 | Establish horticultural crops |
| AHCPHT316 | Supervise mushroom substrate preparation |
| AHCPHT317 | Coordinate horticultural crop harvesting |
| AHCPHT409 | Develop a crop regulation program |
| AHCPHT410 | Develop harvesting and processing specifications to produce an olive oil |
| AHCPHT411 | Implement and monitor a horticultural crop harvesting program |
| AHCPHT412 | Manage mushroom substrate preparation |
| AHCPHT413 | Oversee vineyard practices |
| AHCPHT511 | Develop a horticultural production plan |
| AHCPHT512 | Manage a controlled growing environment |
| AHCSOL203 | Assist with soil or growing media sampling and testing |
| AHCSOL406 | Sample soils and interpret results |
| AHCSOL506 | Manage erosion and sediment control |
| AHCSOL507 | Develop and manage a plan to reclaim land affected by salinity |
| AHCWAT302 | Monitor and operate water treatment processes |
| AHCWAT504 | Design water treatment systems |

## c. Skill sets (not for endorsement)

| AHC Agriculture, Horticulture and Conservation and Land Management Training Package *Version No 6* Skill sets | |
| --- | --- |
| Code | Title |
| AHCSS00064 | Production Horticulture Administration Supervisor Skill Set |
| AHCSS00068 | Production Horticulture Technology Skill Set |
| AHCSS00107 | Production Horticulture Machinery Skill Set |
| AHCSS00108 | Production Horticulture Manager Skill Set |
| AHCSS00109 | Production Horticulture Supervisor Skill Set |
| AHCSS00114 | Design Roof Gardens, Vertical Gardens and Green Facades Skill Set |
| AHCSS00115 | Construct Roof Gardens, Vertical Gardens and Facades Skill Set |
| AHCSS00116 | Maintain Roof Gardens, Vertical Gardens and Green Facades Skill Set |

## d. Mapping information

### Mapping of qualifications

| Mapping of qualifications between  AHC Agriculture, Horticulture and Conservation and Land Management Training Package Versions 5.0 and 6.0. | | | |
| --- | --- | --- | --- |
| Code and title AHC V5.0 | Code and title  AHC V6.0 | Comments | Equivalence statement |
| AHC20316 Certificate II in Production Horticulture | AHC20320 Certificate II in Production Horticulture | Merged two qualifications | Not equivalent |
| AHC20716 Certificate II in Production Nursery | AHC20720 Certificate II in Nursery Operations | Merged two qualifications | Not equivalent |
| AHC30616 Certificate III in Production Horticulture | AHC30620 Certificate III in Production Horticulture | Merged two qualifications | Not equivalent |
| AHC31116 Certificate III in Production Nursery | AHC31120 Certificate III in Nursery Operations | Merged two qualifications | Not equivalent |
| AHC31216 Certificate III in Retail Nursery | AHC31120 Certificate III in Nursery Operations | Merged two qualifications | Not equivalent |
| AHC33216 Certificate III in Floriculture | AHC30620 Certificate III in Production Horticulture | Merged two qualifications | Not equivalent |
| AHC40316 Certificate IV in Production Horticulture | AHC40320 Certificate IV in Production Horticulture | Amended packaging rules, new core and elective units | Not equivalent |
| AHC40616 Certificate IV in Production Nursery | AHC40620 Certificate IV in Nursery Operations | Merged two qualifications | Not equivalent |
| AHC40716 Certificate IV in Retail Nursery | AHC40620 Certificate IV in Nursery Operations | Merged two qualifications | Not equivalent |
| AHC50316 Diploma of in Production Horticulture | AHC50320 Diploma of Production Horticulture | Amended packaging rules, new core and elective units | Not equivalent |
| AHC50816 Diploma of Production Nursery Management | AHC50820 Diploma of Nursery Management | Amended title, packaging rules and entry requirements, new core and elective units | Not equivalent |
| AHC50916 Diploma of Retail Nursery Management | Not applicable | Deleted | Not applicable |

### Mapping of units of competency

| Mapping of units of competency between  AHC Agriculture, Horticulture and Conservation and Land Management Training Package Versions 5.0 and 6.0. | | | |
| --- | --- | --- | --- |
| Code and title  AHC V5.0 | Code and title  AHC V6.0 | Comments | Equivalence statement |
| Not applicable | AHCGRI301 Maintain roof gardens, vertical gardens and green facades | The unit has been created to address an emerging skill or task required by industry | Newly created |
| Not applicable | AHCGRI401 Construct roof gardens | The unit has been created to address an emerging skill or task required by industry | Newly created |
| Not applicable | AHCGRI402 Construct vertical gardens and green facades | The unit has been created to address an emerging skill or task required by industry | Newly created |
| Not applicable | AHCGRI501 Design roof gardens | The unit has been created to address an emerging skill or task required by industry | Newly created |
| Not applicable | AHCGRI502 Design vertical gardens and green facades | The unit has been created to address an emerging skill or task required by industry | Newly created |
| AHCNSY101 Support nursery work | AHCNSY102 Support nursery work | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY201 Pot up plants | AHCNSY205 Pot up plants | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY202 Care for nursery plants | AHCNSY206 Care for nursery plants | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY203 Undertake propagation activities | AHCNSY207 Undertake propagation activities | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY204 Maintain indoor plants | AHCNSY208 Maintain indoor plants | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY301 Maintain nursery plants | AHCNSY308 Maintain nursery plants | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY302 Receive and dispatch nursery products | AHCNSY309 Receive and dispatch nursery products | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY303 Install and maintain plant displays | AHCNSY310 Install and maintain plant displays | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY304 Deliver and promote sales of plants | AHCNSY311 Promote sales of plants | Major changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY305 Prepare specialised plants | AHCNSY312 Prepare specialised plants | Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY306 Implement a propagation plan | AHCNSY313 Implement a propagation plan | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY307 Operate fertigation equipment | AHCNSY314 Operate fertigation equipment | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY401 Plan a growing-on program | AHCNSY403 Plan a growing-on program | Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCNSY402 Plan a propagation program | AHCNSY404 Plan a propagation program | Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPCM201 Recognise plants | AHCPCM204 Recognise plants | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPCM203 Fell small trees | AHCPCM205 Fell small trees | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPCM301 Implement a plant nutrition program | AHCPCM305 Implement a plant nutrition program | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPCM302 Provide information on plants and their culture  Release 1 | AHCPCM302 Provide information on plants and their culture  Release 2 | Minor changes to application  Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM304 Report on health and condition of trees  Release 1 | AHCPCM304 Report on health and condition of trees  Release 2 | Minor changes to application  Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM401 Recommend plants and cultural practices | AHCPCM404 Recommend plants and cultural practices | Minor changes to application  Minor changes to performance criteria  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM402 Develop a soil health and plant nutrition program  Release 1 | AHCPCM402 Develop a soil health and plant nutrition program  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM403 Implement an integrated pest management program | AHCPCM405 Implement an integrated pest management program | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPCM501 Diagnose plant health problems | AHCPCM507 Diagnose plant health problems | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPCM502 Collect and classify plants  Release 1 | AHCPCM502 Collect and classify plants  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM503 Specify plants for landscapes  Release 1 | AHCPCM503 Specify plants for landscapes  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM504 Design specialised landscape  Release 1 | AHCPCM504 Design specialised landscape  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM505 Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs  Release 1 | AHCPCM505 Conduct environment and food safety risk assessment of plant nutrition and soil fertility programs  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPCM506 Develop an integrated pest management program | AHCPCM508 Develop an integrated pest management program | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| Not applicable | AHCPCM509 Apply knowledge of plant physiology to horticultural practices | The unit has been created to address an emerging skill or task required by industry | Newly created |
| AHCPCM601 Develop and implement a plant health management strategy  Release 1 | AHCPCM601 Develop and implement a plant health management strategy  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT101 Support horticultural production  Release 1 | AHCPHT101 Support horticultural production  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT201 Plant horticultural crops | AHCPHT215 Plant horticultural crops | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT202 Carry out canopy maintenance | AHCPHT216 Carry out canopy maintenance | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT204 Undertake field budding and grafting | AHCPHT217 Undertake field budding and grafting | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT205 Carry out post-harvest operations | AHCPHT218 Carry out post-harvest operations | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT206 Handle and move mushroom boxes | AHCPHT219 Handle and move mushroom boxes | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT207 Perform mushroom substrate process tasks | AHCPHT220 Perform mushroom substrate process tasks | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT208 Water mushroom crops | AHCPHT221 Water mushroom crops | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT209 Produce trellis dried grapes | AHCPHT222 Produce trellis dried grapes | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT301 Carry out a crop regulation program | AHCPHT312 Implement a crop regulation program | Redesigned unit that includes content from previous units | Not equivalent |
| AHCPHT303 Implement a post-harvest program | AHCPHT313 Implement a post-harvest program | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT304 Harvest horticultural crops mechanically | AHCPHT314 Harvest horticultural crops mechanically | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT305 Regulate crops | AHCPHT312 Implement a crop regulation program | Redesigned unit that includes content from previous units | Not equivalent |
| AHCPHT306 Establish horticultural crops | AHCPHT315 Establish horticultural crops | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT307 Prepare raw materials and compost feedstock  Release 1 | AHCPHT307 Prepare raw materials and compost feedstock  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT308 Prepare value added compost-based products  Release 1 | AHCPHT308 Prepare value added compost-based products  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT309 Supervise mushroom substrate preparation | AHCPHT316 Supervise mushroom substrate preparation | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT310 Coordinate horticultural crop harvesting | AHCPHT317 Coordinate horticultural crop harvesting | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT401 Assess olive oil for style and quality  Release 1 | AHCPHT401 Assess olive oil for style and quality  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT402 Develop a crop regulation program | AHCPHT409 Develop a crop regulation program | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT403 Develop harvesting and processing specifications to produce an olive oil | AHCPHT410 Develop harvesting and processing specifications to produce an olive oil | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT404 Implement and monitor a horticultural crop harvesting program | AHCPHT411 Implement and monitor a horticultural crop harvesting program | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT405 Manage mushroom substrate preparation | AHCPHT412 Manage mushroom substrate preparation | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT406 Control Phase II mushroom substrate process  Release 1 | AHCPHT406 Control Phase II mushroom substrate process  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT407 Manage mushroom crop development  Release 1 | AHCPHT407 Manage mushroom crop development  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCPHT408 Oversee vineyard practices | AHCPHT413 Oversee vineyard practices | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT502 Develop a horticultural production plan | AHCPHT511 Develop a horticultural production plan | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCPHT503 Manage a controlled growing environment | AHCPHT512 Manage a controlled growing environment | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCSOL202 Assist with soil or growing media sampling and testing | AHCSOL203 Assist with soil or growing media sampling and testing | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCSOL401 Sample soils and interpret results | AHCSOL406 Sample soils and interpret results | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCSOL402 Develop a soil use map for a property  Release 1 | AHCSOL402 Develop a soil use map for a property  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCSOL403 Prepare acid sulphate soil management plans  Release 1 | AHCSOL403 Prepare acid sulphate soil management plans  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCSOL404 Supervise acid sulphate soil remediation and management projects  Release 1 | AHCSOL404 Supervise acid sulphate soil remediation and management projects  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCSOL502 Manage soils to enhance sustainability  Release 1 | AHCSOL502 Manage soils to enhance sustainability  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCSOL503 Manage erosion and sediment control | AHCSOL506 Manage erosion and sediment control | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCSOL504 Develop and manage a plan to reclaim land affected by salinity | AHCSOL507 Develop and manage a plan to reclaim land affected by salinity | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCWAT201 Set up, operate and maintain water delivery systems for compost  Release 1 | AHCWAT201 Set up, operate and maintain water delivery systems for compost  Release 2 | Performance criteria clarified  Foundation skills added  Assessment requirements updated | Equivalent |
| AHCWAT301 Monitor and operate water treatment processes | AHCWAT302 Monitor and operate water treatment processes | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |
| AHCWAT501 Design water treatment systems | AHCWAT504 Design water treatment systems | Minor changes to application  Major changes to performance criteria  Foundation skills added  Assessment requirements updated | Not equivalent |

### Skill sets mapping information (not for endorsement)

| Mapping of skill sets between  AHC Agriculture, Horticulture and Conservation and Land Management Training Package Versions 5.0 and 6.0. | | | |
| --- | --- | --- | --- |
| Code and title  AHC V5.0 | Code and title  AHC V6.0 | Comments | Equivalence statement |
| AHCSS00064 Production Horticulture Administration Supervisor Skill Set  Release 1 | AHCSS00064 Production Horticulture Administration Supervisor Skill Set  Release 2 | Skill set requirements amended and minor edits. | Equivalent |
| AHCSS00065 Production Horticulture Machinery Skill Set | AHCSS00107 Production Horticulture Machinery Skill Set | Skill set requirements amended, minor edits and unit of competency updated to current version. | Equivalent |
| AHCSS00066 Production Horticulture Manager Skill Set | AHCSS00108 Production Horticulture Manager Skill Set | Skill set requirements amended, minor edits and units of competency updated to current version. | Equivalent |
| AHCSS00067 Production Horticulture Supervisor Skill Set | AHCSS00109 Production Horticulture Supervisor Skill Set | Skill set requirements amended, minor edits and unit of competency updated to current version. | Equivalent |
| AHCSS00068 Production Horticulture Technology Skill Set  Release 1 | AHCSS00068 Production Horticulture Technology Skill Set  Release 2 | Skill set requirements amended and minor edits. | Equivalent |
| Not applicable | AHCSS00114 Design roof gardens, vertical gardens and green facades | Skill set has been created to address a defined industry need | Newly created |
| Not applicable | AHCSS00115 Construct roof gardens, vertical gardens and green facades | Skill set has been created to address a defined industry need | Newly created |
| Not applicable | AHCSS00116 Maintain roof gardens, vertical gardens and green facades | Skill set has been created to address a defined industry need | Newly created |

### Credit arrangements

|  |  |  |
| --- | --- | --- |
| Credit arrangements for  AHC Agriculture, Horticulture and Conservation and Land Management Training Package *Version No 6* | | |
| Qualification Code | Qualification Title | Credit Arrangement Details |
| AHC20320 | Certificate II in Production Horticulture | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC20720 | Certificate II in Nursery Operations | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC30620 | Certificate III in Production Horticulture | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC31120 | Certificate III in Nursery Operations | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC40320 | Certificate IV in Production Horticulture | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC40620 | Certificate IV in Nursery Operations | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC50320 | Diploma of Production Horticulture | At the time of endorsement of this training package, no national credit arrangements exist. |
| AHC50820 | Diploma of Nursery Management | At the time of endorsement of this training package, no national credit arrangements exist. |

# Appendix 2: Industry support

## Consultation activities

A range of strategies were used for consultation with stakeholders during development of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.*

## Green Walls and Rooftop Gardens

Consultation activities included:

* Project page on the Skills Impact website - throughout project lifecycle <https://www.skillsimpact.com.au/horticulture-conservation-and-land-management/training-package-projects/green-walls-rooftop-gardens-project/>
* News articles and stories in Skills Impact newsletters and other external publications – throughout project
* SME WG and functional analysis workshops – 3 September 2019
* Site visits and face-to-face meetings – throughout project
* Consultation draft 1 – feedback hub, face-to-face workshops and webinar – 30 October to 1 December 2019
* Validation survey – 7 February – 1 March 2020
* Validation meeting – 26 February 2020
* 2nd round feedback – 6 – 19 July 2020
* 2nd round validation – 29 July – 12 August 2020.

Stakeholders engaged during the project are described in the matrix below, with a full list of all engaged stakeholders [available below](#_All_stakeholders_engaged). It is worth noting that, as the skill sets and units of competency developed as part of this project are new, there were no existing Registered Training Organisations (RTOs) to engage in the project. Instead, Skills Impact reached out to RTOs who were delivering existing related qualifications for their input.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ACT** | **NSW** | **NT** | **Qld** | **SA** | **Tas** | **Vic** | **WA** | **National** |
| **Industry (employer / employee)** |  |  |  |  |  |  |  |  |  |
| **Industry association** |  |  |  |  |  |  |  |  | **\*** |
| **Union** |  |  |  |  |  |  |  |  |  |
| **Registered Training Organisation (RTO)** |  |  |  |  |  |  |  |  |  |
| **Government department** | \* |  |  |  |  | \* |  |  |  |

\* Note: Feedback received from a national industry association and an Industry Training Advisory Body, Government departments and Industry Association confirmed few to no relevant stakeholders in Tasmania and Australian Capital Territory.

### Project page on the Skills Impact website

A project page was set up on the Skills Impact website at the start of the project with information about the project together with progress updates. The project page remained on the website throughout the project. Visitors were invited to register their interest to receive email alerts about the project including notification and registration for public consultation workshops and opportunities to provide feedback on draft materials.   
Green Walls and Rooftop Gardens project page: <https://www.skillsimpact.com.au/horticulture-conservation-and-land-management/training-package-projects/green-walls-rooftop-gardens-project/>

### Publications

As part of communication activities to inform stakeholders of the project’s progress and opportunities for input and feedback, news articles, social media posts and newsletters were published. Skills Impact newsletters and website news articles were published on the Skills Impact website and distributed to the database of subscribers. External publications were distributed to the relevant publisher’s subscriber lists.

#### Skills Impact newsletters and website news articles

Distributed to the Skills Impact database of subscribers.

* Opportunities for Feedback & New Project; New Green Walls & Rooftop Gardens Project – 16 September 2019
* Register for a Workshop; Green walls & Rooftop Gardens – 4 October 2019
* Skills Impact Newsletter; Help shape the Skills Standards for Your Sector – 24 October 2019
* Feedback Invited on Draft Skills Standards; Green Walls & Rooftop Gardens drafts available – 30 October 2019, 7 November 2019 & 29 November 2019
* Year in Review & Australian Training Awards – 12 December 2019
* Skills Impact Newsletter; Your feedback in Action Green Walls & Rooftop Gardens – 20 December 2019
* Have Your Say on Final Draft Skill Standards; Green Walls & Rooftop Gardens – 31 January 2020
* Final Draft Skills Standards Available for Comment; Green Walls & Rooftop Gardens validation drafts available – 11 February 2020 & 21 February 2020.
* Feedback on Additional Changes Green Walls and Rooftop Gardens Project - 6 July 2020
* Validate Green Walls and Rooftop Gardens Skills Standards – 29 July 2020

In addition to these publications, an *Update on Skills Impact Projects* Newsletter was distributed to State and Territory Training Authorities, Industry Training Advisory Boards and Councils, Victorian Curriculum Maintenance Managers and TAFE NSW Industry Liaison people each month, providing updates on all Skills Impact projects, including the Green Walls and Rooftop Gardens project.

#### External publications

* Master Landscapers of SA Newsletter – ‘Help Define National Skills Standards for Green Walls & Rooftop Gardens’ – November 2019
* Landscape QLD Newsletter – ‘Green Walls and Rooftop Gardens Project Consultation’ – November 2019
* The Landscape Association - 18 October 2019 workshops
* Velg Training - 30 May 2019
* VET PD Group - September 2019

### Industry Feedback – Green Walls and Rooftop Gardens

Subject Matter Expert Working Group – SME meeting 3 September 2019 Sydney

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Andrew Booth | Junglefy | NSW State Manager | Industry / Medium | NSW |
| Ben Nicholson | Groof Consulting/The Urban Greener | Director | Industry / Sole Trader | VIC |
| Claire Farrell | The University of Melbourne | Senior Lecturer in Green Infrastructure | RTO / Large | MEL |
| Dr Jana Soderlund | Green Roofs Australiasia | National Business Development Manager | Industry / Large | WA |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Emil Montibeler | Ozbreed Plants | National Business Development Manager | Industry / Medium | NSW |
| Leigh Barrett | Living Style and Landscapes | Director | Industry / Medium | QLD |
| Marianne Mentis | Greenwall Solutions | Business Development Manager | Industry / Small | NSW |
| Mark Paul | The Greenwall Company | Director | Industry / Small | NSW |
| Matthew Lunn | Landscape Industry Association of Western Australia (LIAWA) | Executive Officer | Industry Association / Medium | WA |
| Michael Casey | Australian Institute of Horticulture | President | Industry Association / Medium | NAT |
| Pamela Gurner-Hall | Footprint Landscape Design | Director | Industry / Small | SA |
| Penny Smith | The Hills Bark Blower | Research Manager | Industry / Medium | NSW |
| Saul Johnson | SJ Landscapes | Director Head Landscaper | Industry / Small | QLD |
| Tony Momi | Horticulture TAFE NSW | Head Teacher | RTO / Large | NSW |

Consultation Webinar Participants – 26 November 2019

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| David Priem | Agribusiness SkillsPoint | Industry Relationship Lead – Land Management | RTO / Large | NSW |
| Frances Parnell | Department of Training and Workforce Development | Manager, Training Curriculum Services | Government / Small | WA |
| Jeremy Rose | Artibus Innovation | Manager Industry Development | Government / Small | NAT |
| Mark Corea | Moreland City Council | Unit Manager, Open Space Maintenance | Government / Small | WA |

Consultation Workshop Participants – 13 November 2019 Adelaide

1 registration with no attendees

Consultation Workshop Participants – 14 November 2019 Perth

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Catherine Storrs | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Esther Ngang | Matrix Western Australia | Director | Industry | NAT |
| Julian Rose | Deep Green Landscaping | Director | Industry / Medium | WA |
| Lisa Hall | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Paul Etheredge | Food, Fibre & Timber Industries Training Council | Project Manager | Industry Association / Small | WA |
| Shaun Banner | OCKHM Biophilicities Australia | Director, Vice Chair | Industry / Small | WA |

Consultation Workshop Participants – 19 November 2019 Brisbane

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Kathleen FitzGerald | Greening Australia | Compliance Trainer | Industry / Large | NAT |
| Mark Sorby | Landscape Queensland | CEO | Industry / Small | QLD |

Consultation Workshop Participants – 20 November 2019 Sydney

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| David Hinton | TAFE NSW | Teacher | RTO / Large | NSW |
| Michael Clay | Clayscaping | Owner | Industry / Small | NSW |
| Robbie Renu | Gecko Plant Scapes | Owner | Industry | NSW |
| Tony Momi | Horticulture TAFE NSW | Head Teacher | RTO / Large | NSW |

Consultation Workshop Participants – 26 November 2019 Melbourne

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Anne Wiltshire | Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager | RTO / Large | VIC |
| Ben Nicholson | Groof Consulting & The Urban Greener | Director | Industry / Sole Trader | VIC |
| Claudia Green | Box Hill Institute | Trainer – Horticulture and Land Management | RTO / Large | VIC |
| Gail Hall | City of Melbourne | Green Infrastructure Coordinator | Government / Large | VIC |
| Lynda Green | Australian Apprenticiships & Traineeships Information Service | Training Package Content Officer | Government / Small | VIC |
| Megan Flower | Landscaping Victoria Master Landscapers | Executive Officer | Industry / Small | VIC |

Consultation Draft Feedback Contributors 30 October – 1 December 2019

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Andrew Hewitt | TAFE NSW | Head Teacher – Landscape Design | RTO / Large | NSW |
| Anne Wiltshire | Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager | RTO / Large | VIC |
| Belinda Watson | Melbourne PolyTech | Teacher/Project Officer | RTO / Large | VIC |
| Ben Nicholson | Groof Consulting & The Urban Greener | Director | Industry / Sole Trader | VIC |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Erik Van Zuilekom | United Natures | Designer, Botanist and Living Architecture Designer | Industry | NAT |
| Lisa Hall | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Paul Etheredge | Food, Fibre & Timber Industries Training Council | Project Manager | Industry Association / Small | WA |
| Sheree Bourke | Alexandria Park Community School | Science and TAS Department | RTO | NSW |
| Tony Momi | Horticulture TAFE NSW | Head Teacher | RTO / Large | NSW |

SME Validation Forum Participants – 26 February 2020 Brisbane

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Ben Nicholson | Groof Consulting & The Urban Greener | Director | Industry / Sole Trader | VIC |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Leigh Barrett | Living Style and Landscapes | Director | Industry / Medium | QLD |
| Lisa Hall | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Michael Casey | Australian Institute of Horticulture | President | Industry Association / Medium | NAT |
| Michael Clay | Clayscaping | Owner | Industry / Small | NSW |
| Saul Johnson | SJ Landscapes | Director Head Landscaper | Industry / Small | QLD |

Validation Draft Feedback Contributors 7 February – 1 March 2020

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Anne Wiltshire | Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager | RTO / Large | VIC |
| Leigh Barrett | Landscape Queensland | President | Industry Association / Small | QLD |
| Nelson Brown | Department of Trade, Business and Innovation  Northern Territory Government of Australia | Senior Project Officer | Government | NT |
| Pamela Gurner-Hall | Footprint Landscape Design | Director | Industry / Small | SA |

IRC and SME representatives meeting – 4 June 2020 via zoom

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Craig Hallam | Amenity Horticulture Landscaping Parks and Gardens | Expert | Industry Association | VIC |
| Esther Ngang | Amenity Horticulture Landscaping Parks and Gardens | Expert | Industry | WA |
| Jen Ford | Australian Association of Bush Regenerators Inc | Organisational member | Industry Association | QLD |
| Leigh Barrett | Living Style and Landscapes | Director | Industry / Medium | QLD |
| Lisa Hall | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Megan Flower | Amenity Horticulture Landscaping Parks and Gardens | Expert | Industry Association | VIC |
| Michael Casey | Australian Institute of Horticulture | President | Industry Association / Medium | NAT |
| Stewart Detez | Swinburne University | Manager | RTO / Large | VIC |

SME meeting – 25 June 2020 via zoom

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Ben Nicholson | Groof Consulting & The Urban Greener | Director | Industry / Sole Trader | VIC |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Leigh Barrett | Living Style and Landscapes | Director | Industry / Medium | QLD |
| Lisa Hall | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Michael Casey | Australian Institute of Horticulture | President | Industry Association / Medium | NAT |
| Craig Jones | Maroondah Landscapes | Managing Director | Industry | VIC |
| Stewart Detez | Swinburne University | Manager | RTO / Large | VIC |
| Gail Hall | Individual | Individual | N/A | VIC |
| Michael Platt | Design Landscapes | Managing Director | Industry | NSW |
| Esther Ngang | Amenity Horticulture Landscaping Parks and Gardens | Expert | Industry | WA |
| Tony Momi | Horticulture TAFE NSW | Head Teacher | RTO / Large | NSW |
| Saul Johnson | SJ Landscapes | Director Head Landscaper | Industry / Small | QLD |

Further Draft Feedback Contributors 6-19 July 2020

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Ann Moore | Holmesglen Institute | Assistant Manager | RTO | VIC |
| Anne Wiltshire | Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager | RTO / Large | VIC |
| Craig Jones | Maroondah Landscapes | Managing Director | Industry | VIC |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Gail Hall | Individual | Individual | N/A | VIC |
| Geoff Heard | Fytogreen | Director | Industry | VIC |
| Jacqueline Spencer | Department of Education and Training Victoria | Manager, Training Products Unit | STA | VIC |
| Jock Gammon | Junglefy | Founder & Managing Director | Industry | NSW |
| Lisa Ellis | Lisa Ellis Gardens Pty Ltd | Director | Industry | VIC |
| Michael Casey | Australian Institute of Horticulture | President | Industry Association / Medium | NAT |
| Paul Etheredge | Food, Fibre and Timber Industries Training Council WA Inc. | Projects Manager | Industry Association | WA |
| Rosie Mohorko | Leaf Wood Rock Landscapes | Landscape Architect | Industry | QLD |
| Saul Johnson | SJ Landscapes | Director Head Landscaper | Industry / Small | QLD |
| Tony Momi | Horticulture TAFE NSW | Head Teacher | RTO / Large | NSW |

Further Validation Draft Feedback Contributors 29 July - 12 August 2020

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Ben Nicholson | Groof Consulting & The Urban Greener | Director | Industry / Sole Trader | VIC |
| Craig Jones | Maroondah Landscapes | Managing Director | Industry | VIC |
| Dr Jana Soderlund | Green Roofs Australiasia | National Business Development Manager | Industry / Large | WA |
| Eddie Bennett | TAFE Queensland | Board Director | RTO / Large | QLD |
| Gail Hall | Individual | Individual | N/A | VIC |
| Leigh Barrett | Living Style and Landscapes | Director | Industry / Medium | QLD |
| Lisa Hall | South Metropolitan TAFE | Lecturer | RTO / Large | WA |
| Lucinda Pita | Department of Training & Workforce Development WA | Senior Program Officer | Government | WA |
| Michael Casey | Australian Institute of Horticulture | President | Industry Association / Medium | NAT |
| Tony Momi | Horticulture TAFE NSW | Head Teacher | RTO / Large | NSW |

Other face-to-face consultation activities

In addition to regular email and telephone contact with relevant stakeholders and Subject Matter Experts, the following face-to-face consultation activities have taken place as part of this project.

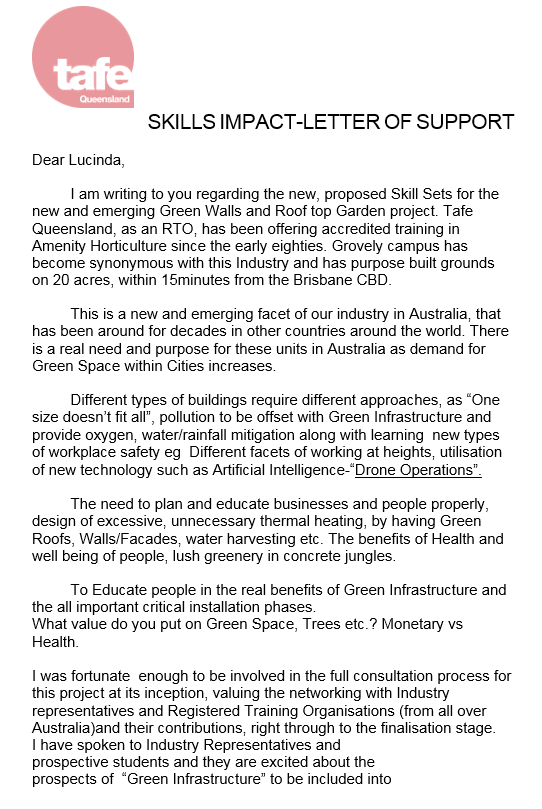
Date 16 October 2019 – Visit to and detailed exploration of One Central Park in Sydney

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Jock Gammon | Junglefy | Managing Director & Co-Founder | Industry / Medium | NSW |

These organisations were invited to participate in the project:

* Tas TAFE
* Merivale Tactical Training Group
* International College of Management Sydney
* Jungle Horticulture
* Instyle plants
* Melbourne Polytechnic
* Boss Gardenscapes
* Citygreen
* Outside space
* Building Designers Association of Australia
* Ecopolis
* The Landscape Association
* Biofilta
* Irrigation Australia
* Yerrabingin House
* TWS Building & Waterproofing Consultants Pty Ltd
* Arboriculture Australia
* Therapeutic Horticulture Association
* ASPECT Studios
* Master Landscapers of SA MLSA
* Bayer
* Facility Management Association of Australia
* EcoCity World
* Riverside Place Apartments
* Strata Management
* TW Consulting
* APTC Australia.

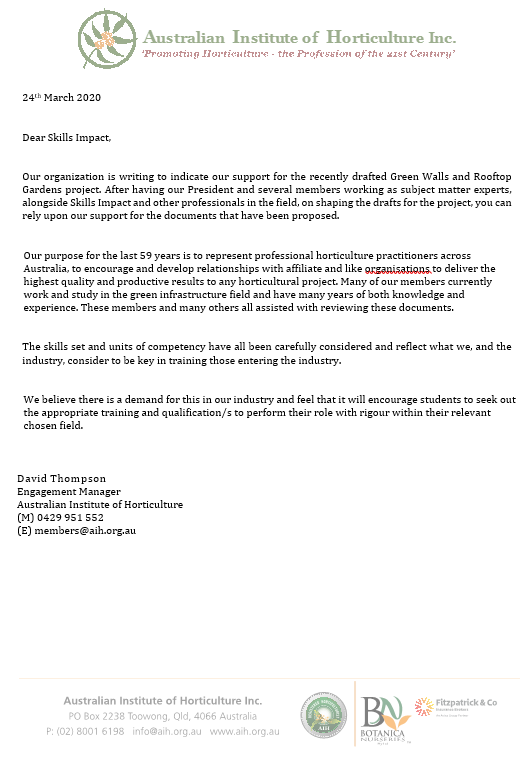
### Letters of Support



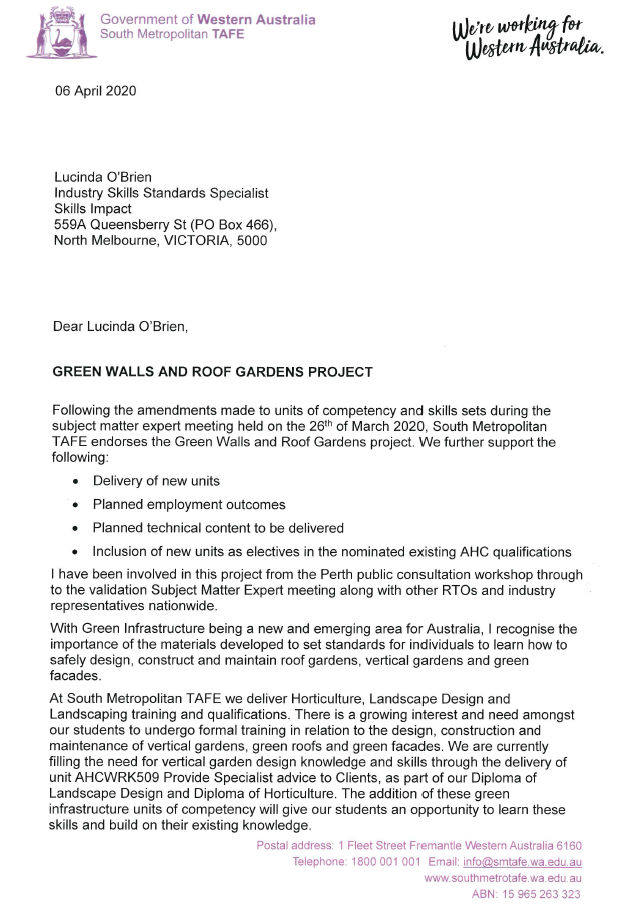
















20 August 2020

Dear Skills Impact,

I am writing to provide my support for the Green Walls and Rooftop Gardens project. I have been involved in this project from the first Subject Matter Expert meeting in September 2019, to the Perth public consultation workshop through to the second round of validation.

Having completed a PhD in Biophilic Design, I have actively been involved in bringing nature and green infrastructure into our cities for 8 years. Green walls and rooftop gardens are a huge component of this and a rapidly expanding field as people are discovering the huge potential of this area. I am a member of the Biophilic Cities steering committee and chair Biophilic Cities Australia.

The materials developed set standards for individuals to learn how to safely design, construct and maintain roof gardens, vertical gardens and green facades. These are very important skills and knowledge and I support the drafts created. I am very much looking forward to the courses beginning and trained individuals resulting.

Dr Jana Soderlund

Chair



  W: biophiliccitiesaustralia.org

 Biophilic Cities Australia

A screenshot of a social media post

Description automatically generated

A screenshot of a social media post

Description automatically generated

A screenshot of a cell phone

Description automatically generated

## Nursery Production and Production Horticulture

Consultation activities included:

* Project page on the Skills Impact website - throughout project lifecycle https://www.skillsimpact.com.au/agriculture/training-package-projects/horticulture-and-nursery-project/
* News articles and stories in Skills Impact newsletters and other external publications – throughout project
* SME Working group and functional analysis workshops – 15th July 2019 – 31st August 2019
* Site visits and face-to-face meetings – throughout project
* Consultation draft 1 – feedback hub, face-to-face workshops, webinars – 15th September 2019 to 30th October 2019
* Validation survey and validation meetings – 20th December 2019 to 15th February 2020
* SME Working group meetings – 23 and 25 June 2020
* Nursery (NSY) sector units of competency review meetings – 17, 22 and 23 July 2020
* Nursery (NSY) sector units of competency 2nd round feedback – 10 – 25 August 2020
* Nursery (NSY) sector units of competency 2nd round validation – 28 August – 5 September 2020

Stakeholders engaged during the project are described in the matrix below, with a full list of all engaged stakeholders [available below](#_All_stakeholders_engaged).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ACT** | **NSW** | **NT** | **Qld** | **SA** | **Tas** | **Vic** | **WA** | **National** |
| **Industry (employer / employee)** |  |  |  |  |  |  |  |  |  |
| **Industry association** |  |  |  |  |  |  |  |  |  |
| **Union** |  |  |  |  |  |  |  |  | \*\* |
| **Registered Training Organisation (RTO)** |  |  |  |  |  |  |  |  |  |
| **Government department** |  |  |  |  |  |  |  |  |  |

\*\*Note: Representatives from unions United Voice, National Union of Workers and Australian Manufacturing Workers' Union (AMWU) were informed of the project throughout its progress.

### Project page on the Skills Impact website

A project page was set up on the Skills Impact website at the start of the project with information about the project together with progress updates. The project page remained on the website throughout the project. Visitors were invited to register their interest to receive email alerts about the project including notification and registration for public consultation workshops and opportunities to provide feedback on draft materials.   
Horticulture and Nursery project page: <https://www.skillsimpact.com.au/agriculture/training-package-projects/horticulture-and-nursery-project/>

### Publications

As part of communication activities to inform stakeholders of the project’s progress and opportunities for input and feedback, news articles, social media posts and newsletters were published. Skills Impact newsletters and website news articles were published on the Skills Impact website and distributed to the database of subscribers.

* Next Steps for Agronomy, Horticulture, Nursery, & Rural Merchandising Skill Standards – 21 February 2020
* Next Steps for Agronomy, Horticulture, Nursery, & Rural Merchandising Skill Standards – 10 February 2020
* Final drafts for horticulture, nursery and rural merchandising – 29 November 2019
* Food, Fibre and Timber Industries Training Council – Update and links to new Skills Impact projects – 8 September 2019
* Food, Fibre and Timber Industries Training Council – Update and links to new Skills Impact projects – 9 August 2019
* Velg Training – 'Five Focus Areas in One New Project Alone’ – 30 May 2019.

In addition to these publications, an *Update on Skills Impact Projects* Newsletter was distributed to State and Territory Training Authorities, Industry Training Advisory Boards and Councils, Victorian Curriculum Maintenance Managers and TAFE NSW Industry Liaison people each month, providing updates on all Skills Impact projects, including the 20-05 – Nursery Production and Production Horticulture project.

### Industry Feedback – Nursery Production and Production Horticulture

**Subject Matter Expert Working Group –   
Production Nursery and Retail Nursery 10th July 2019 Sydney NSW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Michelle Lindhout | SuniTAFE Mildura | Trainer/Assessor Production Nursery | RTO | VIC |
| David Reid | Nursery & Garden Industry Victoria, East Malvern | Policy and Technical Manager | Industry Association | VIC |
| Matt Lunn | Nursery & Garden Industry WA | CEO | Industry Association | WA |
| Chris O’Connor | Nursery & Garden Industry Australia | Program Manager | Industry Association | National |
| Mark Cody | Primary Industries Skills Council | Executive Director | Industry Association | SA |
| Matt Mansfield | Mansfield’s Propagation Nursery | Operations Manager | Enterprise | VIC |
| Steve Biemond | Biemond’s Nursery | General Manager | Enterprise | VIC |
| George Vavitis | Gardenworld | General Manager | Enterprise | VIC |
| Shane Hickey | Flower Power | Director HR | Enterprise | NSW |
| Des Boorman | Biyamiti FBB | Owner/Sole Trader | Industry Association | NSW |
| Stephen Rixon | TAFE NSW | Head of Horticulture | RTO | NSW |
| Estelle Cornell | Allora Gardens Nursery/Estelle’s Florist | Managing Director | Enterprise | NT |

**Subject Matter Expert Working Group –   
Production Horticulture and Floriculture 11th July 2019 Sydney NSW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Nathan Free | Victorian Farmer’s Federation | Vice-president Horticulture Board Director | Industry Association | VIC |
| Sophie Lapsley | RMCG VegPRO | Education & Training Coordinator and Agriculture Consultant | RTO | TAS |
| Mark Cody | Primary Industries Skills Council | Executive Director | Government | SA |
| Michelle Smith | NSW Depart Primary Industries  Tocal College | Leader Digital Delivery Resources | RTO | NSW |
| Terry Buckley | J&FL Buckley & Sons | Partner/Manager | Enterprise | SA |

**Subject Matter Expert Working Group  
Production Horticulture, Production Nursery and Retail Nursery Management 15th July 2019 Sydney NSW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Janne Dipple | FarmReady P/L | Induction and Training | Enterprise | QLD |
| Karen George | GrowCom QLD Ag Workforce Network | Ag Workforce Manager | Industry Association | QLD |
| Kathleen Fitzgerald | Greening Australia | RTO Compliance Trainer | Industry Association | QLD |
| John Piccirillo | SuniTAFE | Teacher – Production Horticulture | RTO | VIC |
| Chris O’Connor | Nursery and Garden Industry Australia | Program Manager | Industry Association | National |
| Erika Smith | TAFE NSW | Teacher/Industry/Self-employed | RTO and Enterprise | NSW |

**Consultation Webinar Participants 3rd September hosted from Penguin, Tasmania**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Karen George | GrowCom QLD Ag Workforce Network | Ag Workforce Manager | Industry Association | QLD |
| Michelle Smith | NSW Depart Primary Industries  Tocal College | Leader Digital Delivery Resources | RTO | NSW |
| Shane Hickey | Flower Power | Director HR | Enterprise | NSW |
| Sophie Lapsley | RMCG VegPRO | Education & Training Coordinator and Agriculture Consultant | RTO | TAS |
| Terry Buckley | J&FL Buckley & Sons | Partner/Manager | Enterprise | SA |

**Consultation Workshop Participants 17th September 2019 in Mildura, VIC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Michelle Lindhout | SuniTAFE | Primary industries teacher | RTO | VIC |
| John Piccirillo | SuniTAFE | Teacher - Production Horticulture | RTO | VIC |
| Nick Moore | SuniTAFE | Production Horticulture teacher | RTO | VIC |

**Consultation Workshop Participants 25th September 2019 in Adelaide, SA**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Andrew Nooteboom | ARO Educational Services | Trainer | RTO | SA |
| Dr Kavitha Shanmugan | Ironwood Institute | Trainer | RTO | SA |

**Consultation Workshop Participants 26th September 2019 in Sydney, NSW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Samantha Minslow | Flower Power | Training Manager | RTO | NSW |
| George Koukkoulis | Open Colleges | Trainer/Assessor | RTO | National |
| Anna Richards | TAFE NSW | Head Teacher (Horticulture) | RTO | NSW |

**Consultation Workshop Participants 8th October 2019 in Brisbane, QLD**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Marsha Young | Safe Food QLD | Policy and Engagement Officer | Government/35 | QLD |
| Ian Bray | Safe Food QLD | Engagement Coordinator and Auditor | Government/35 | QLD |
| Pete Macqueen | TAFE QLD | Teacher | RTO | QLD |

**Consultation Workshop Participants 9th October 2019 in Cairns, QLD**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| No registrations on EventBrite and no attendees on the day | | | | |

**Consultation Workshop Participants 10th October 2019 in Melbourne, VIC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| David Reid | Nursery & Garden Industry Victoria | Policy and Technical Manager | Industry Association | VIC |
| Michael Callaway | Swinburne | Teacher | RTO | VIC |
| Stewart Detez | Swinburne | Manager | RTO | VIC |
| Leigh Taig | GoTAFE Goulburn Ovens TAFE | Teacher | RTO | VIC |

**Consultation Webinar Participants 14th October 2019 in Darwin, NT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Debbie Knight | Industry Skills Advisory Council NT | Industry Support Officer | Industry Association | NT |
| Anne Wiltshire | Melbourne Polytechnic | Curriculum Maintenance Manager | RTO | VIC |
| Megan Hurst | Tabma Training/Quest College | Training and Compliance Officer | RTO | QLD |
| Jacqueline Heap | TAFE NSW | Teacher Resource Writer | RTO | NSW |
| Mala Rupal | ACT Education Management | Teacher | RTO | ACT |
| Shweta Singh | University of Queensland | Lecturer | RTO | QLD |

**Consultation Workshop Participants 15th October 2019 in Darwin, NT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Neda Aleksic | Industry Skills Advisory Council NT | Training Package Development Officer | Industry Association | NT |
| Estelle Cornell | Allora Nursery & Estelle’s Florist | Managing Director | Enterprise – small-medium | NT |
| Michelle Lewis | Charles Darwin University | Educational Program Manager | RTO | NT |

**Consultation Workshop Participants 16th October in Perth, WA**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Ric Ullman | Southern Metro TAFE | Manager | RTO/300+ | WA |
| Philip Owen | Wallum Nurseries | Quality Manager | Enterprise/30 | WA |
| Frances Parnell | Dept Training and Workforce Development | Manager | Government/300+ | WA |
| Catherine Storrs | Southern Metro TAFE | Lecturer | RTO/300+ | WA |
| Pascaline Owers | Southern Metro TAFE | Portfolio Manager | RTO/300+ | WA |
| Matthew Lunn | Nursery & Garden Industry Western Australia | CEO | Industry association/100 members | WA |
| Paul Etheredge | Food, Fibre & Timber Industries Training Council WA (FFTITC) | Project Manager | Government/4 | WA |
| Dr Kathya Kar | Public | Botanist | Public | WA |

**Consultation Draft Feedback Contributors 16 September to 31 October 2019**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Robyn Wing | Charles Darwin University | VET lecturer- Horticulture | RTO | NT |
| Jacqueline Heap | TAFE NSW | Teacher resource writer | RTO | NSW |
| Paul Etheredge | Agriculture, Food, Seafood, Horticulture & Animal Care, Food, Fibre & Timber Industries Training Council | Project Manager | Government | WA |
| Anne Wiltshire | Dept of Agriculture, Animal and Equine Studies Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager (PICMM) | RTO | VIC |
| Frances Parnell | State Workforce Planning Dept of Training and Workforce Development | manager, Training Curriculum Services | Government | WA |
| George Koukkoullis | Open Colleges | Horticulture & Agriculture Trainer & Assessor | RTO | NSW |
| Kathleen FitzGerald | Greening Australia | RTO Compliance / Trainer | RTO | QLD |
| Samantha Minslow- | Flower Power Group NSW | Training Manager | Enterprise | NSW |
| Belinda Watson-Noblet | Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager (PICMM) | RTO | VIC |
| Sophie Lapsley | RMCG | Education & training initiative Coordinator | Enterprise | TAS |
| Nathan Free | Victorian Farmer's Federation | Vice President Horticulture | Industry association | VIC |
| Doris Blaesing | RMCG | Associate | Enterprise | TAS |
| Michelle Lindhout | Sunraysia Tafe | Primary industries teacher | RTO | VIC |
| Colin Hunt | TAFE NSW | Teacher | RTO | NSW |
| David Reid | Nursery & Garden Industry | Policy and Technical Manager | Industry association | VIC |
| Pascaline Owers | South Metropolitan TAFE | Portfolio Manager | RTO | WA |
| Peter Macqueen | TAFE Queensland | Teacher | RTO | QLD |
| Catherine Storrs | South Metro TAFE | Lecturer Horticulture | RTO | WA |
| Nick Moore | Suni TAFE | Head of Primary Industries | RTO | VIC |
| Gavin James | Benara Nurseries | Director/General Manager | Enterprise | WA |
| Janne Dipple | FarmReady Hub | Director | Enterprise | QLD |
| Jannelle Beard | TAFE NSW | Product Development Coordinator | RTO | NSW |
| John Piccirillo | SuniTAFE | Teacher – Production Horticulture | RTO | VIC |
| Sethu Ramasamy | RMIT University | Tutor | RTO | VIC |
| Lorraine Tomlinson | South Metropolitan TAFE | Principal Lecturer | RTO | WA |
| Kavitha Shanmugam | Ironwood Institute | Trainer | RTO | SA |
| Andrew Milner | TAFE QLD | Teacher | RTO | QLD |
| Neil Marriott | South Metro TAFE | Teacher | RTO | WA |
| Ric Ullman | SM TAFE | Lecturer | RTO | WA |
| Paul McClure | Sunraysia TAFE | Teacher | RTO | VIC |

**Validation Draft Feedback Contributors Email and Survey Feedback Hub**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| Anne Wiltshire | Dept of Agriculture, Animal and Equine Studies Melbourne Polytechnic | Primary Industries Curriculum Maintenance Manager (PICMM) | RTO | VIC |
| Shane Hickey | Flower Power | Director HR | Enterprise | NSW |
| Dr Shweta Singh | University of Qld | Lecturer | RTO | QLD |
| Alvin Gopal | Australian College of Agriculture and Horticulture (ACAH) | CEO | RTO | VIC |
| Stephen Rixon | TAFE NSW | Head of Horticulture | RTO | NSW |

**Validation Meeting Participants 28th January and 30 January 2020 Melbourne**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| George Vavitis | Gardenworld | General Manager | Enterprise | VIC |
| David Reid | Nursery & Garden Industry | Policy and Technical Manager | Industry association | VIC |
| Des Boorman | Biyamiti FBB | Owner/Sole Trader | Industry Association | NSW |
| Michelle Lindhout | Sunraysia Tafe | Primary industries teacher | RTO | VIC |
| Mark Cody | Primary Industries Skills Council | Executive Director | Industry Association | SA |

**Webinar Participants 19 February 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Organisation | Position | Organisation Type / Size | State |
| David Reid | Nursery & Garden Industry | Policy and Technical Manager | Industry association | VIC |
| Des Boorman | Biyamiti FBB | Owner/Sole Trader | Industry Association | NSW |
| Michelle Lindhout | Sunraysia Tafe | Primary industries teacher | RTO | VIC |

**Webinar SME WG Participants 23 and 25 June 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Position** | **Organisation** | **Organisation Type / Size** | **State** |
| Craig Taberner | CEO | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| Mark Cody | Primary Industries Skills Council | Executive Director | Industry Association | SA |
| David Reid | Policy and Technical  Manager | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| Nick Juniper | Executive Officer | Food and Primary Skills Victoria | Government | VIC |
| Peter Vaughan | CEO | Greenlife Industry GIA | Industry association | NSW |
| Matt Mansfield | Mansfield’s Propagation Nursery | Operations Manager | Enterprise | VIC |
| Des Boorman | Biyamiti FBB | Owner/Sole Trader | Industry Association | NSW |
| Ian Atkinson | CEO | Nursery and Garden Industry Queensland | Industry Association | QLD |
| Jim Johnson | Nursery Manager | Oasis Horticulture | Enterprise | VIC |

**Webinar Review Participants 17, 22 and 23 July 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Des Boorman | Biyamiti FBB | Owner/Sole Trader | Industry Association | NSW |
| Ian Atkinson | CEO | Nursery and Garden Industry Queensland | Industry Association | QLD |
| Michael Callaway | Horticulture Teacher | Swinburne College | RTO | VIC |

**Participants who were invited but did not attend 17, 22 and 23 July 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Peter Vaughan | CEO | Greenlife Industry GIA | Industry association | NSW |
| Matt Mansfield | Mansfield’s Propagation Nursery | Operations Manager | Enterprise | VIC |
| Craig Taberner | CEO | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| Mark Cody | Primary Industries Skills Council | Executive Director | Industry Association | SA |
| David Reid | Policy and Technical  Manager | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| Geoffrey Fuller | Former President | Nursery and Garden Industry South Australia | Industry Assocation | SA |
| George Vavitis | Store Manager | Gardenworld | Enterprise with 25 employees | VIC |
| Shane Hickey | Flower Power | Director HR | Enterprise | NSW |
| Estelle Cornell | Allora Gardens Nursery/Estelle’s Florist | Managing Director | Enterprise | NT |
| Matthew Lunn | Landscape Industry Association of Western Australia (LIAWA) | Executive Officer | Industry Association / Medium | WA |
| Stephen Rixon | TAFE NSW | Head of Horticulture | RTO | NSW |

**Consultation Draft Feedback Contributors 10th to 25th August 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Megan Hurst | Horticultural Trainer/ Compliance Officer | TABMA | RTO | QLD |
| Peter MacQueen | Teacher | TAFE Qld | RTO | QLD |

**Further Validation Draft Contributors 25th August 2020 to 4th September 2020**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Matthew Lunn | CEO | NGIWA Nursery & Garden Industry (WA) | Industry Association / Medium | WA |
| David Reid | Policy and Technical Manager | Nursery & Garden Industry | Industry association | VIC |
| Des Boorman | Owner/Sole Trader | Biyamiti FBB | Industry Association | NSW |
| Michelle Lindhout | Primary industries teacher | Sunraysia Tafe | RTO | VIC |
| Ian Atkinson | CEO | Nursery and Garden Industry Queensland | Industry Association | QLD |
| Catherine Storrs | Lecturer Horticulture | South Metropolitan TAFE | RTO | WA |
| Neda Aleksic | Training Package Development | Industry Skills Advisory Council NT on behalf of Charles Darwin University  Batchelor Institute of Indigenous Tertiary Education | RTO | NT |
| Lucinda Pita | Senior Program Officer | Training Curriculum Services  Department of Training & Workforce Development | Government | WA |

Other face-to-face consultation activities

In addition to regular email and telephone contact with relevant stakeholders and Subject Matter Experts, the following face-to-face consultation activities have taken place as part of this project.

**Meeting with Nursery and Garden Industry Victoria, 24th July 2019 at NGIV office, East Malvern, VIC.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Craig Taberner | CEO | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| David Reid | Policy and Technical  Manager | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |

**Site visit – Retail Nursery 19th August 2019 at Braeside, VIC.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| George Vavitis | Store Manager | Gardenworld | Enterprise with 25 employees | VIC |

**Site visit –Floriculture 22nd August 2019 at Silvan, VIC.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Alana Pittard | Manager Horticulture Group | Victorian Farmer’s Federation | Industry association | VIC |
| Robert de Wit | Farmer/Owner | Burleigh Flowers | Enterprise with 15 employees | VIC |
| Mariske de Wit | Farmer/Owner | Sunny Hill Flowers | Enterprise with 20 employees | VIC |
| Owen Brinson | Farmer/Owner | Peny Bryn Flowers | Enterprise with 5 employees | VIC |

**Site visit – Production Nursery 30th August 2019 at Seville, VIC.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Steve Biemond | Managing Director | Biemond’s Nursery | Enterprise with 25 employees | VIC |

**Site visit – Mushroom grower 2nd September 2019 at Spreyton, TAS.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Michael Kaine | Head grower/site manager | Tasmanian Mushrooms | Enterprise with 70 employees | TAS |

**Site visit – Cherry and Apple producer 2nd September 2019 at Spreyton, TAS.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Warren Viney | Site Manager/Owner | Spreyton Fresh | Enterprise with 18-100 employees depending on season | TAS |

**Site visit – Seed Potato producer (mini-tubers) 3rd September 2019 at Spreyton, TAS.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Les Ollington | Operations Manager | Agronico | Enterprise with 25 employees | TAS |

**Meeting with Nursery and Garden Industry Victoria, 10th September 2019 at NGIV office, East Malvern, VIC.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Position | Organisation | Organisation Type / Size | State |
| Craig Taberner | CEO | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| David Reid | Policy and Technical  Manager | Nursery and Garden Industry Victoria | Industry association with 3000 stakeholders | VIC |
| Andrew White | Manager | Humphris Nursery | Enterprise | VIC |
| Anne Moore | Head of Department Environment | Holmesglen TAFE | RTO | VIC |
| David Mathews | Managing Director | ProteaFlora | Enterprise | VIC |
| Gaby Mitchell | Manager | Speciality Trees | Enterprise | VIC |
| George Vavitis | General Manager | Gardenworld | Enterprise | VIC |
| James Farmer | Manager | Melbourne Polytechnic | RTO | VIC |
| Kate O’Grady | Trainer | Swinburne | RTO | VIC |
| Mike Callaway | Teacher | Swinburne | RTO | VIC |
| Nick Juniper | Executive Officer | Food and Primary Skills Victoria | Government | VIC |
| Steve Biemond | Managing Director | Biemond Nursery | Enterprise | VIC |
| Stewart Detez | Manager | Swinburne | RTO | VIC |

### Letters of Support

Cathy,

Please accept this email as formal confirmation of my support of the work that Skills Impact has done to submit a Case to the Australian Industry and Skills Committee.

I have been part of each step as an Industry Representative for Horticulture and have been impressed with the process and outcomes achieved by Skills Impact.

I represent two valid entities, as follows:

Director

**Sunny Daze Pty Ltd t/a Bare Essentials Quality Vegetables**

**Vegetable and herb farm located in the Lockyer Valley, Queensland**

ABN:  77 069 925 499



As well as:

Founder

**FarmReady Ptd Ltd**

**Australian Agricultural Workforce Development and Training**

[www.farmreadyhub.com](http://www.farmreadyhub.com)



Thank you for the opportunity to support the project from both an industry and training perspective.

Kind regards,

**Janne Dipple**

*Grad Dip in Adult Language, Literacy and Numeracy in Practice*

*Cert IV in Training and Assessment*

*Adv Dip in Rural Bus Mgt*

*Diploma Farm Management Skill Set*

*Cert IV in Agriculture*

*Cert IV in Business Administration*

*Chemical Skills Set*

Company Founder

Mobile: **0417 163 487**

[Linkedin](https://www.linkedin.com/in/jannedipple/)

[www.farmreadyhub.com](http://www.farmreadyhub.com)



9 April 2020

To whom it may concern

**Letter of Support for changes made Certificate Levels in Production Nursery, Retail Nursery, Production Horticulture and Floriculture Production, Horticulture, Production Nursery and Retail Nursery Management.**

Flower Power is the largest retail nursery company in NSW which comprises of 10 retail Garden Centres made up of plants, landscape supplies & homewares. In addition, we have a 65 acre growing facility at Glenorie and indoor growing facility at Warriewood. We service 420 000 Garden Lovers Members throughout NSW.

Flower Power supports the changes being made to programs from Certificate Levels in Production Nursery, Retail Nursery, Production Horticulture and Floriculture Production, Horticulture, Production Nursery and Retail Nursery Management.

These changes will support the ongoing training necessary to see participants who complete programs are skilled to a level that supports our industry.

Streamlining the programs will now be in line with industry specific needs. This has been much needed in the industry for some time.

The process of completing this project was very systematic which involved those from various areas of the horticulture, production, floriculture and retail sectors.

Shane Hickey

Chief Human Resources Officer

The Flower Power Group

Arborglen Pty Ltd



# Appendix 3: Minor Updates

| **AHC - Agriculture, Horticulture and Conservation and Land Management Training Package V5.0 and V6.0 mapping of qualifications** | | | |
| --- | --- | --- | --- |
| **Code and title (previous version)** | **Code and title (current version)** | **Comments** | **Equivalence statement** |
| AHC20919 Certificate II in Sports Turf  Release 1 | AHC20919 Certificate II in Sports Turf  Release 2 | Updated unit codes | Equivalent |
| AHC21819 Certificate II in Protected Horticulture  Release 2 | AHC21819 Certificate II in Protected Horticulture  Release 1 | Added new Medicinal Crops units to Group E General electives and updated elective unit codes | Equivalent |
| AHC31516 Certificate III in Indigenous Land Management  Release 3 | AHC31516 Certificate III in Indigenous Land Management  Release 4 | Updated unit codes | Equivalent |
| AHC31818 Certificate III in Beekeeping  Release 1 | AHC31818 Certificate III in Beekeeping  Release 2 | Updated unit codes | Equivalent |
| AHC40219 Certificate IV in Protected Horticulture  Release 1 | AHC40219 Certificate IV in Protected Horticulture  Release 2 | Updated unit codes | Equivalent |
| AHC41119 Certificate IV in Irrigation Management  Release 1 | AHC41119 Certificate IV in Irrigation Management  Release 2 | Updated unit codes | Equivalent |

# Appendix 4: Quality assurance report

# Quality Report Template

# Section 1 – Cover page

| Information required | Detail |
| --- | --- |
| Training Package title and code | AHC Agriculture, Horticulture, Conservation and Land Management Training Package, Version 6.0 |
| Number of new qualifications and their titles[[1]](#footnote-2) | Nil |
| Number of revised qualifications and their titles | Eight revised qualifications:   1. AHC20320 Certificate II in Production Horticulture 2. AHC20720 Certificate II in Nursery Operations 3. AHC30620 Certificate III in Production Horticulture 4. AHC31120 Certificate III in Nursery Operations 5. AHC40320 Certificate IV in Production Horticulture 6. AHC40620 Certificate IV in Nursery Operations 7. AHC50320 Diploma of Production Horticulture 8. AHC50820 Diploma of Nursery Management |
| Number of new units of competency and their titles | Six new units of competency:   1. AHCGRI301 Maintain roof gardens, vertical gardens and green facades 2. AHCGRI401 Construct roof gardens 3. AHCGRI402 Construct vertical gardens and green facades 4. AHCGRI501 Design roof gardens 5. AHCGRI502 Design vertical gardens and green facades 6. AHCPCM509 Apply knowledge of plan physiology to horticultural practices |
| Number of revised units of competency and their titles | Forty-eight revised units of competency:   1. AHCNSY102 Support nursery work 2. AHCNSY205 Pot up plants 3. AHCNSY206 Care for nursery plants 4. AHCNSY207 Undertake propagation activities 5. AHCNSY208 Maintain indoor plants 6. AHCNSY308 Maintain nursery plants 7. AHCNSY309 Receive and dispatch nursery products 8. AHCNSY310 Install and maintain plant displays 9. AHCNSY311 Promote sales of plants 10. AHCNSY312 Prepare specialised plants 11. AHCNSY313 Implement a propagation plan 12. AHCNSY314 Operate fertigation equipment 13. AHCNSY403 Plan a growing-on program 14. AHCNSY404 Plan a propagation program 15. AHCPCM204 Recognise plants 16. AHCPCM205 Fell small trees 17. AHCPCM305 Implement a plant nutrition program 18. AHCPCM404 Recommend plants and cultural practices 19. AHCPCM405 Implement an integrated pest management program 20. AHCPCM507 Diagnose plant health problems 21. AHCPCM508 Develop an integrated pest management program 22. AHCPHT215 Plant horticultural crops 23. AHCPHT216 Carry out canopy maintenance 24. AHCPHT217 Undertake field budding and grafting 25. AHCPHT218 Carry out post-harvest operations 26. AHCPHT219 Handle and move mushroom boxes 27. AHCPHT220 Perform mushroom substrate process tasks 28. AHCPHT221 Water mushroom crops 29. AHCPHT222 Produce trellis dried grapes 30. AHCPHT312 Implement a crop regulation program 31. AHCPHT313 Implement a post-harvest program 32. AHCPHT314 Harvest horticultural crops mechanically 33. AHCPHT315 Establish horticultural crops 34. AHCPHT316 Supervise mushroom substrate preparation 35. AHCPHT317 Coordinate horticultural crop harvesting 36. AHCPHT409 Develop a crop regulation program 37. AHCPHT410 Develop harvesting and processing specifications to produce an olive oil 38. AHCPHT411 Implement and monitor a horticultural crop harvesting program 39. AHCPHT412 Manage mushroom substrate preparation 40. AHCPHT413 Oversee vineyard practices 41. AHCPHT511 Develop a horticultural production plan 42. AHCPHT512 Manage a controlled growing environment 43. AHCSOL203 Assist with soil or growing media sampling and testing 44. AHCSOL406 Sample soils and interpret results 45. AHCSOL506 Manage erosion and sediment control 46. AHCSOL507 Develop and manage a plan to reclaim land affected by salinity 47. AHCWAT302 Monitor and operate water treatment processes 48. AHCWAT504 Design water treatment systems |
| Confirmation that the panel member is independent of:   * the Training Package or Training Package components review (‘Yes’ or ‘No’) * development and/or validation activities associated with the Case for Endorsement * (‘Yes’ or ‘No’) * undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report (‘Yes’ or ‘No’) | Yes  Yes  Yes |
| Confirmation of the Training Packages or components thereof being compliant with the *Standards for Training Packages 2012* | Yes |
| Confirmation of the Training Packages or components thereof being compliant with the *Training Package Products Policy* | Yes |
| Confirmation of the Training Packages or components thereof being compliant with the *Training Package Development and Endorsement Process Policy* | Yes |
| Panel member’s view about whether:   * the evidence of consultation and validation process being fit for purpose and commensurate with the scope * estimated impact of the proposed changes is sufficient and convincing | It is the panel member’s view that the evidence of consultation and validation process is suitable and appropriate for the scope of work against the coverage of the industry. The proposed changes arising from consultation and validation processes are also suitable and appropriate. |
| Name of panel member completing Quality Report | **Lina Robinson** |
| Date of completion of the Quality Report | **29 September 2020** |

# Section 2 – Compliance with the Standards for Training Packages 2012

| Standards for Training Packages | Standard met  ‘yes’ or ‘no’ | Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports) |
| --- | --- | --- |
| Standard 1  Training Packages consist of the following:   1. AISC endorsed components:  * qualifications * units of competency * assessment requirements (associated with each unit of competency) * credit arrangements  1. One or more quality assured companion volumes |  | The proposed components of the AHC Agriculture, Horticulture, Conservation and Land Management Training Package, Version 6.0 case for endorsement meet the requirements of Standard 1. The training package products reviewed as part of this quality process consisted of:   * eight qualifications * fifty-four (6 new and 48 revised) units of competency * sixty-two assessment requirements (6 new and 48 revised) associated with each unit of competency * credit arrangements advising that ‘at the time of endorsement of this training package, no national credit arrangements exist’ * a companion volume implementation guide.   The ‘component details’ in the case for endorsement also notes 8 skill sets and 19 updated units of competency as ‘minor change’ as part of the non-endorsed components. |
| Standard 2  Training Package developers comply with the *Training Package Products Policy* | ***Yes*** | The training package products presented for this quality review comply with the *Training Package Products Policy* that meet the requirements of Standard 2, including:   * Coding/recoding and titling of all qualifications and units of competency comply with the standard. * Entry requirements which are ‘expressed in terms of competencies’ exist for the AHC40620 Certificate IV in Nursery Operations and AHC50820 Diploma of Nursery Management. A rationale for the requirements is provided in the case for endorsement and implementation guide. * Packaging rules in the qualifications are clear. The offering of elective units and the use of the imported unit ruling are sufficient to address a broad range of job roles within the agriculture and horticulture industry sectors. * Foundation skills were identifiable in the units of competency, however where not explicitly described in the performance criteria, are described in the foundation skills field. An explanation on foundation skills is provided in the revised AHC Companion Volume Implementation Guide Version 6.0. * The revised AHC Companion Volume Implementation Guide Version 6.0 provides advice on access and equity considerations including reasonable adjustment for learners with disabilities. * Mapping information to inform users of changes to revised components and equivalence is provided within the qualification and unit of competency mapping information sections and in the AHC Companion Volume Implementation Guide Version 6.0. |
| Standard 3  Training Package developers comply with the AISC *Training Package Development and Endorsement Process Policy* | ***Yes*** | The development processes undertaken by the developers as described in the case for endorsement comply with the *AISC Training Package Development and Endorsement Process Policy* that meet the requirements of Standard 3.  The case for endorsement addresses the cases for change (Reference numbers: Skills Impact/TPD/2019-20-002 and Skills Impact/TPD/2018-19/005) submitted on behalf of the Agriculture and Production Horticulture Industry Reference Committee and approved on 26 March 2019 and 13 August 2019 respectively for the following priority training package development areas undertaken as separate projects:   * Green Walls and Rooftop Gardens * Nursery Production and Production Horticulture.   The case for endorsement describes the national consultation and validation processes undertaken for each project in great detail, which included the following communication strategies: face to face meetings, teleconferences, emails, individual phone calls, newsletters and updates and drafts being available on websites. Lists of individuals and organisations who formed part of subject matter expert working groups and those who attended consultation meetings for each project are also included in the appendices. Letters of support from a number of key stakeholders are also included.  There were no ‘reports by exception’. |
| Standard 4  Units of competency specify the standards of performance required in the workplace | ***Yes*** | The evidence provided of consultation processes indicates that the developers have responded to industry needs in ensuring that the AHC units of competency specify the standards of performance required in the workplace. |
| Standard 5    The structure of units of competency complies with the unit of competency template | ***Yes*** | The editorial report confirmed the structure of the units of competency complies with the required template.  Suggestions were provided to, and the majority addressed by the developer during this review. |
| Standard 6  Assessment requirements specify the evidence and required conditions for assessment | ***Yes*** | The assessment requirements specify the frequency and/or volume of performance evidence, the depth and breadth of knowledge evidence and required conditions to collect this evidence. |
| Standard 7  Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template | ***Yes*** | The editorial report confirmed the structure of the assessment requirements complies with the required template. |
| Standard 8  Qualifications comply with the Australian Qualifications Framework specification for that qualification type | ***Yes*** | The revised qualifications comply with the Australian Qualifications Framework. |
| Standard 9  The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template | ***Yes*** | The editorial report confirmed the structure of information for qualifications complies with the required template. |
| Standard 10  Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template | ***Yes*** | Details that advise that ‘at the time of endorsement of this training package, no national credit arrangements exist’ appear in the case for endorsement in the required template. |
| Standard 11  A quality assured companion volume implementation guide produced by the Training Package developer is available at the time of endorsement and complies with the companion volume implementation guide template. | ***Yes*** | The editorial report confirmed the revised AHC Companion Volume Implementation Guide V6.0 complies with the required template and updated to include the qualifications, units and skill sets presented in this submission. |
| Standard 12  Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required. | ***Yes*** | No other quality assured companion volumes beside the implementation guide were required by stakeholders. |

# Section 3 – Compliance with the training package quality principles

Note: *not all training package quality principles might be applicable to every training package or its components. Please provide a supporting statement/evidence of compliance or non-compliance against each principle.*

**Quality principle 1. Reflect identified workforce outcomes**

|  |  |  |
| --- | --- | --- |
| Key features | Quality principle is met: Yes / No or N/A | Evidence demonstrating compliance/non compliance with the quality principle  Please see examples of evidence in the *Training Package Development and Endorsement Process Policy* |
| Driven by industry’s needs | **Yes** | The case for endorsement provides information about the extent of industry consultation and stakeholder engagement and rationales for changes that occurred during the review of the revised qualifications units of competency and the development of the new units and skill sets. It outlines the involvement of industry and other stakeholders, and summaries the changes made from stakeholder feedback to meet the needs of those stakeholders. |
| Compliant and responds to government policy initiatives  Training package component  responds to the COAG Industry and Skills Council’s (CISC) training package-related initiatives or directions, in particular the 2015 training package reforms. Please specify which of the following CISC reforms are relevant to the training product and identify supporting evidence:   * ensure obsolete and superfluous qualifications are removed from the system * ensure that more information about industry’s expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices * ensure that the training system better supports individuals to move easily from one related occupation to another * improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors * foster greater recognition of skill sets | **Yes** | The AHC training package components are compliant with the *Standards for Training Packages 2012*, the *Training Package Products Policy* and the *Training Package Development and Endorsement Process Policy*.  AHC Version 6.0 responds to all the Ministers’ policy initiatives, in particular the following 2015 training package reforms:   * the newly created and revised units of competency were designed to be utilised across agriculture and horticulture industry sectors, supporting individuals to move easily across the sectors. The case for endorsement provides a mapping for the inclusion of newly created units relating to green infrastructure into suitable qualifications. * removes duplication by merging 10 existing qualifications into 5 revised qualifications, deleting the AHC50916 Diploma of Retail Nursery Management due to low enrolments and merging 2 units of competency into one. * information about industry’s expectations of training delivery and pathways is available in the revised AHC Companion Volume Implementation Guide V6.0 * five skill sets to address skills and knowledge in green infrastructure has been developed to support an industry need and a pathway into a qualification. |
| Reflect contemporary work organisation and job profiles incorporating a future orientation | **Yes** | Detailed information on consultation processes including the developer’s responses to industry needs confirm that the new and revised components reflect contemporary job profiles and work for these industries. |

**Quality principle 2: Support portability of skills and competencies including reflecting licensing and regulatory requirements**

| Key features | Quality principle is met: Yes / No or N/A | Evidence demonstrating compliance with the quality principle  Please see examples of evidence in the *Training Package Development and Endorsement Process Policy* |
| --- | --- | --- |
| Support movement of skills within and across organisations and sectors | **Yes** | Packaging rules in the revised qualifications enables flexibility in the selection of units to suit specific organisation or broader industry applications. Options to import units from other training packages or accredited courses enable movement within organisations, within and across agriculture and horticulture industry sectors and settings.  The reviewer confirms comments from the equity report which states, “flexibility also applies to the Assessment Conditions. The AHC units specify that physical conditions may be ‘a workplace setting or an environment.”  Three skill sets relating to green infrastructure have been developed to support industry training needs and provide a pathway into an AHC qualifications. |
| Promote national and international portability | **Yes** | Australian Standards relating to health and safety, environmental, and biosecurity were considered for the units and are addressed in the relevant unit of competencies. |
| Reflect regulatory requirements and licensing | **Yes** | Regulatory requirements for green infrastructure were considered during consultation. It was established that requirements vary nationwide, hence the following general licensing statement is included in the skill sets and units of competency relating to green infrastructure:  *“Licensing, legislative or certification requirements may apply to the work undertaken in this [unit/skill set] in some jurisdictions. Users are advised to check with the relevant regulatory authorities.”* |

**Quality principle 3: Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry**

| Key features | Quality principle is met: Yes / No or N/A | Evidence demonstrating compliance with the quality principle  Please see examples of evidence in the *Training Package Development and Endorsement Process Policy* |
| --- | --- | --- |
| Reflect national consensus | **Yes** | Evidence of industry engagement is reflected in the case for endorsement that details the consultation that was conducted, and summaries the changes made to accommodate stakeholder views. As well as targeted consultations, there were opportunities for stakeholders to review the draft components on Skills Impact website prompted by email alerts. |
| Recognise convergence and connectivity of skills | **Yes** | The AHC units of competency support the attainment of skills and knowledge in a range of agriculture and horticulture environments. The newly created and revised units of competency are appropriate to be used across relevant AHC qualifications.  Units listed in AHC qualifications include imported units from other nationally endorsed training packages. |

**Quality principle 4: Be flexible to meet the diversity of individual and employer needs including the capacity to adapt to changing job roles and workplaces**

| Key features | Quality principle is met: Yes / No or N/A | Evidence demonstrating compliance with the quality principle  Please see examples of evidence in the *Training Package Development and Endorsement Process Policy* |
| --- | --- | --- |
| Meet the diversity of individual and employer needs | **Yes** | The revised qualifications have been updated to ensure that the elective units of competency are appropriate and available to meet the needs of individuals as well as employers. |
| **Support equitable access and progression of learners** | **Yes** | Entry requirements for qualifications only exist for AHC40620 Certificate IV in Nursery Operations and AHC50820 Diploma of Nursery Management. Prior skills and knowledge may be obtained from a qualification or industry experience.  There are no prerequisite requirements for AHC units of competencies. |

**Quality principle 5: Facilitate recognition of an individual’s skills and knowledge and support movement between the school, vocational education and higher education sectors**

| Key features | Quality principle is met: Yes / No or N/A | Evidence demonstrating compliance with the quality principle  Please see examples of evidence in the *Training Package Development and Endorsement Process Policy* |
| --- | --- | --- |
| Support learner transition between education sectors | **Yes** | Information to support learner transition between education sectors and progression between qualifications is provided in the revised AHC Companion Volume Implementation Guide V6.0.  Both the AHC20320 Certificate II in Production Horticulture and AHC20720 Certificate II in Nursery Operations are suitable for delivery as VET programs for secondary school students, and 8 qualifications have been recommended by the IRCs as suitable for traineeship/apprenticeship delivery. |

**Quality principle 6: Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements**

| Key features | Quality principle is met: Yes / No or N/A | Evidence demonstrating compliance with the quality principle  Please see examples of evidence in the *Training Package Development and Endorsement Process Policy* |
| --- | --- | --- |
| Support implementation across a range of settings | **Yes** | Advice about delivery across a range of agronomy and rural settings is provided in the AHC Companion Volume Implementation Guide V6.0. This was confirmed in the Equity Report. |
| Support sound assessment practice | **Yes** | The assessment requirements support sound assessment practice because they clearly written and express the frequency or volume of performance evidence, the extensiveness of knowledge evidence and the essential assessment conditions to collect the evidence. |
| Support implementation | **Yes** | No barriers have been identified that would impact on implementation. The draft training package components are publication ready.  Implementation advice is provided the revised AHC Companion Volume Implementation Guide Version 6.0 that is ready for publication at the same time as the Training Package. |

1. When the number of training products is high the t*itles can be presented as an attached list.* [↑](#footnote-ref-2)